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WEEKLY NEWSPAPER FOR THE FARM CHEMICAL MANUFACTURER, FORMULATOR AND DEALER

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No. 9

## Diamond, V-C Form New Black Leaf Company

RICHMOND, VA.—Formation of a new corporation to take over the manufacture and marketing of Black Leaf brand agricultural chemicals and pest control products was announced here Feb. 24 jointly by Joseph A. Howell, president of Virginia-Carolina Chemical Corp., Richmond, and John A. Sargent, president of Diamond Alkali Co., Cleveland. Major interest in the new firm, to be known as Diamond Black Leaf Co., will be held by Diamond Alkali Co. It will also be managed by Diamond, with Virginia-Carolina holding minority interest in the new corporation.

Under the agreement, Diamond will acquire Virginia-Carolina's interest in the new firm during the next five years. Formal details of implementing the plan, now being worked out by both companies, are expected to be completed by March 1, when Diamond Black Leaf Co. goes into operation.

In absorbing the Black Leaf Products Division of Virginia-Carolina Chemical Corp., the new firm will continue to manufacture and market the complete Black Leaf line of agricultural and pest control chemicals for use by both commercial growers and home gardeners.

The line encompasses some 200 (Continued on page 21)

## Burley Group Asks for Tobacco Poundage Control

LOUISVILLE—The Burley Growers Cooperative Assn., Lexington, recently recommended that a poundage limit of not in excess of 1,800 lb. burley be marketed from the acre, plus continuation of the present acreage allotment system.

The directors are also in favor of higher penalties on tobacco in excess of acreage and poundage controls.

## Insects Take Annual Toll of \$75 Million in South Carolina, Clemson Pesticide School Told

CLEMSON, S.C.—The fourth annual pesticide school held at Clemson College Feb. 15-16 was attended by some 200 representatives of the chemical and agricultural industry. Dr. R. F. Poole, president of Clemson College in welcoming the group, stressed the growth that the pesticide industry has made during recent years and pointed out the need for more information on the new types of pesticides.

One of the first talks of the 2-day meet, which got under way in the new auditorium of the Clemson House Hotel, was by D. W. Watkins, di-

## True D. Morse to Head Speakers at NAC Meeting

WASHINGTON—True D. Morse, under secretary of agriculture, will be the principal speaker at the annual spring meeting of the National Agricultural Chemicals Assn., to be held at the Hotel Chase in St. Louis, March 7-9.

"Better Farming with Agricultural Chemicals" is the theme of the convention, which will be attended by an estimated 300 representatives from this \$400,000,000 industry.

"Agricultural chemicals are the farmer's best means today of cutting his production costs—and thereby of making more money," said Lea S. Hitchner, executive secretary of the association, which will gather leading scientists, farm representatives, government officials and manufacturers of agricultural chemicals to survey the future of the industry. They will take a particularly sharp look at the rapidly growing fields of herbicides and soil insecticides.

Featured on the program will be a detailed explanation of how the Miller Bill will be applied in practice and the effect of this legislation on future industry research. The Miller Bill was enacted by Congress last year to determine the amount of pesticide residue which

(Continued on page 5)

## Arizona Legislature Gets Pesticide Bill

PHOENIX—A bill which would require warning notices on labels of insecticides, if they carry ingredients dangerous to human beings, has been introduced in the Arizona Legislature by Rep. William B. Carr, Yuma Democrat. Besides setting up regulations for the pesticides industry, the bill would provide for administration by a permanent state chemist.

A bill to regulate the production and sale of fertilizers was introduced earlier under the same sponsorship.

rector of the South Carolina Agricultural Extension Service.

He pointed out that insects take a \$75,000,000 toll in South Carolina each year. He discussed the role that the extension service plays both on a county-wide and state-wide basis toward helping to eliminate these staggering losses.

L. M. Sparks, Jr., Clemson Extension Specialist on cotton insects and diseases, was the leader of the first panel discussion on the aerial application of pesticides. Other members

(Continued on page 8)

## Use of Plant Food to Cut Surplus Stressed At Midwest Meeting

By LAWRENCE A. LONG  
Editor of Croplife

CHICAGO—The timing and placement of fertilizer, using plant foods as a tool in reducing crop surpluses and a presentation of suggested minimum fertilizer grade needs of the Middle West were featured subjects at the Feb. 17-18 meeting of the Middle West Soil Improvement Committee at the Palmer House here. A record-breaking crowd of over 500 was in attendance.

In his talk covering fertilizer placement and time of application for corn, Dr. J. D. MacGregor, associate professor of soils, University of Minnesota, St. Paul, pointed out that "fall fertilization should become increasingly popular with farmers, because it is more convenient than is crowding the job into a short spring rush period."

## Khapra Quarantine Effective in Three Western States

WASHINGTON—Effective Feb. 21 Arizona, California and New Mexico were quarantined under a khapra beetle quarantine, the U.S. Department of Agriculture has announced. Grain, grain products, and other material likely to harbor the beetle, moving interstate from premises infested with this destructive stored grain insect, generally require certification based on fumigation.

The chief of the Plant Pest Control Branch, Agricultural Research Service, is authorized to determine the warehouses, mills, and other premises in which infestations exist and to designate them and their environs as regulated areas under the terms of the quarantine regulations.

## Hearing on Chafer Quarantine Scheduled

WASHINGTON—A public hearing at which interested persons may appear and express their views on a proposal to quarantine the states of Connecticut, New York and West Virginia because of the occurrence there of the European chafer will be held in Pittsburgh March 10, the U.S. Department of Agriculture announced Feb. 24.

The hearing begins at 10 a.m. before the USDA representative in the auditorium of the U.S. Bureau of Mines, 4800 Forbes St.

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The Minnesota soils expert pointed out additional advantages of fall fertilizer application as including better condition of fields for application and the fact that farmers can often realize substantial discounts for taking fall delivery of fertilizer materials.

Tests have indicated that complete nitrogen, phosphate and potash fertilizer broadcast on plowed land in the fall in Minnesota proved to be equally as effective for increasing corn yields as that applied the following spring. "There was little or no loss of plant nutrients during the winter," he said.

Minnesota tests showed that corn yields were just as high when nitrogen fertilizer was added in the fall as when it was applied in the spring. Dr. MacGregor said that "there is no conclusive field proof that late fall applications of nitrate nitrogen to typical corn belt soils will result in serious loss of the applied nitrogen over the winter."

He said that the biggest corn yield increase from nitrogen fertilizer comes from side-dressing it a month to three months after planting, rather than adding it before plowing. However increasing the amount of nitrogen added can insure an adequate supply all season long for the corn crop.

(Continued on page 24)

## Sulfur Production Increases in 1954

WASHINGTON—In December, 1954 the sulfur industry produced 477,909 long tons of native sulfur and approximately 32,200 long tons of recovered sulfur, according to reports of producers to the Bureau of Mines, U. S. Department of the Interior.

Output during 1954 totaled 5,515,543 long tons of native sulfur, and 357,400 tons of recovered sulfur, an increase of 7% in native and 6% in recovered over the previous year. Sales were approximately 4% less than production and consequently producers' stocks at the end of the year showed an increase of 7% over that at the beginning.



## Southern Fertilizer Section Set For New Orleans Meeting

NEW ORLEANS—A full program of practical helps was on the agenda for the Fertilizer Section of the Southern Safety Conference scheduled to be held here Feb. 28 and March 1.

Speakers on the first day's program included A. B. Pettit, supervisor of industrial health and safety, Davison Chemical Co., division of W. R. Grace Co., Baltimore; Vernon S. Gornito, Smith-Douglass Co., Inc., Norfolk, Va.; John S. Mark, director, Iowa Farm Supply Co., Des Moines; and Harold R. Krueger, production manager, Snyder Chemical Co., Topeka, Kansas.

F. Wayne High, Baugh Chemical Co., Baltimore, was to lead a question and answer period.

On the program for March 1 was

a report of the nominating committee and subsequent election of officers. Talks were also to be heard from Thomas J. Clarke, GLF Soil-Building Service, Ithaca, N.Y., chairman of the Fertilizer Section, National Safety Council; Charles L. McDaniel, technical service supervisor, Lion Oil Co., El Dorado, Ark.; and A. L. Foster, superintendent, International Minerals & Chemical Corp., Spartanburg, S.C.

## Mite Study

LEXINGTON—A \$10,000 grant to study the red spider mite has been made by the Rockefeller Foundation to Dr. J. G. Rodriguez, assistant entomologist at the University of Kentucky Agricultural Experiment Station. Formal title of the two year project is "Investigations in the Nutrition of Various Plant-Feeding Mites." Part of the study will concern the effects that insecticides and fertilizers have upon the mites.

## Aaron Baxter Joins Olin Mathieson

LIMA, OHIO—Aaron Baxter has joined Olin Mathieson Chemical Corp. as agronomist in the company's Great Lakes Division. Dr. Baxter will cover six states, Kentucky, Ohio, Indiana, Illinois, Wisconsin and Michigan.

He was formerly connected with the Coke-Oven Ammonia Research Bureau and will make his headquarters at Worthington, Ohio.

## TOBACCO RESEARCH

WASHINGTON—The Tobacco Research and Marketing Advisory Committee at a recent meeting here recommended basic research in the production and utilization of better quality tobacco. One of its recommendations was to expand investigations of nematode diseases of tobacco.

## Atlas Net Rises 18% Despite 2% Decrease in Sales

WILMINGTON — Atlas Powder Co.'s 1954 net earnings increased 18% despite a 2% drop in sales, Ralph Gottshall, president, stated in the annual report to stockholders.

Sales and operating revenues from explosives, chemicals, activated carbons, industrial finishes and other products totaled \$57,647,346, compared with the record-high \$58,781,148 in 1953. Sales to government agencies accounted for 9% of the 1954 total, against 8% a year earlier.

Net earnings from operations were \$2,643,404, against \$2,231,061 in 1953. Contributing to this increase was a \$119,335 rise in pretax earnings and a \$293,000 drop in federal tax charges.

After preferred dividends, the 1954 net earnings equalled \$4.05 a common share, compared with \$3.59 a common share in 1953. There were 589,212 common shares outstanding on Dec. 31, 1954, against 544,928 a year earlier. Most of this 44,284 increase resulted from the conversion of a large number of the company's preferred stock into common shares. Had none of the preferred stock been converted, the report stated, earnings on the common would have been \$4.10 a share.

According to Mr. Gottshall, the company's fourth quarter sales last year held up better than seasonal and continued at a good rate into the early weeks of 1955. "On the whole," he said, "conditions seem encouraging for high levels of activity for most chemical products and we have reason to hope, therefore, that 1955 will be another favorable year for Atlas."

The Atlas president referred to a number of long-range programs launched in 1954 to expand sales, increase efficiency and improve profit. Among these, he said, were decentralization of operations, reorganization of some parts of the operating structure, initiation of manpower development programs, intensification of research, and expenditures of about \$446,000 to enlarge and modernize plant, equipment and other facilities.

The 1954 capital expenditure figure is more than twice as high as the 1953 total, and three times higher than the average for the previous decade. Major 1954 projects included a new chemicals plant in Memphis, expansion of the Marshall, Texas, activated carbon plant, and erection of a new general office building near Wilmington.

Anticipated capital expenditures for 1955 total \$4,200,000. This figure, the report states, will be very substantially increased if construction of an anhydrous ammonia plant, currently under consideration, is approved.

## Prentiss Names Frank E. Dempsey & Co. As Canadian Distributor

NEW YORK — Prentiss Drug Chemical Co., Inc. has appointed Frank E. Dempsey & Co. as Canadian distributor for its complete line of insecticides, rodenticides and botanicals. Head office of the Dempsey company is located at 133 Douglass Drive, Toronto 5, Ontario, and a branch is maintained at 1015 Atwater Ave., Montreal 25, Quebec.

Mr. Dempsey, who formed his own company recently, was formerly sales manager of the Chemicals Department of Standard Chemical Co., Ltd., having served them for 30 years. Anthony Dempsey heads up the Montreal branch. Warehouse stocks will be maintained in both cities.

# VULCAN

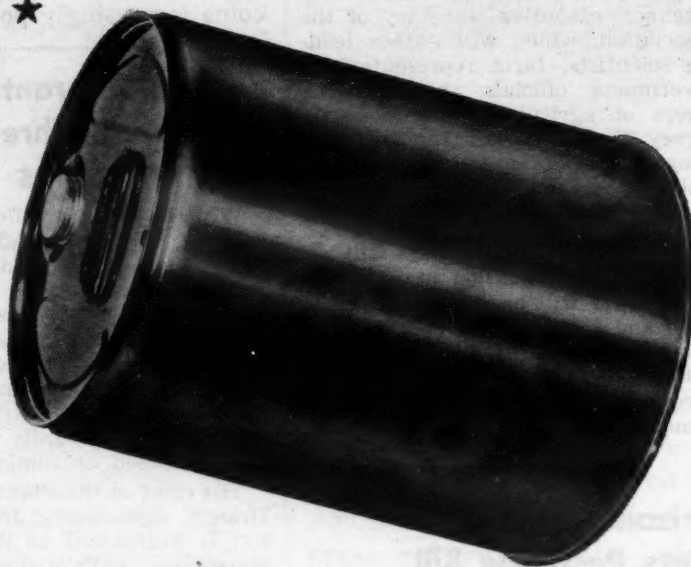
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# Super Output Shows Slight Gain in 1954

WASHINGTON—Production and shipment of superphosphate showed slight gains during 1954, the Bureau of the Census, U.S. Department of Commerce announced recently.

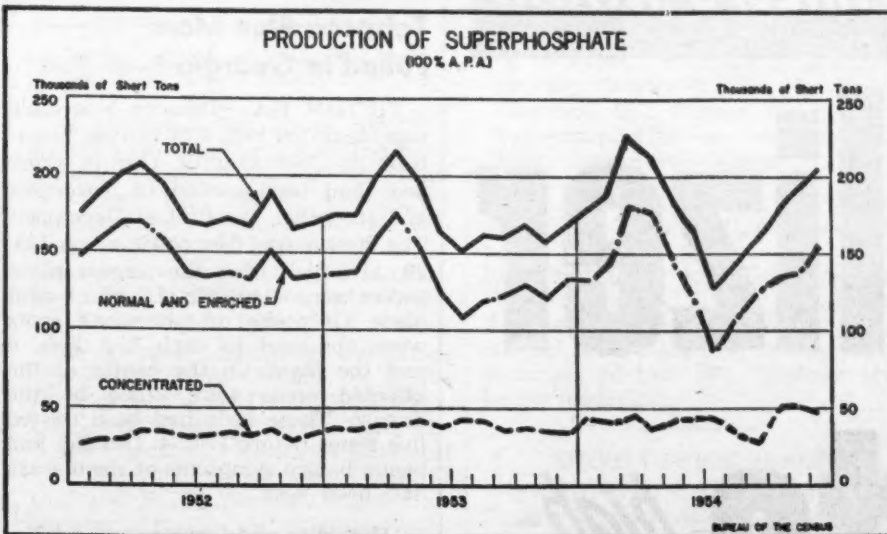
Preliminary totals show that production of normal and enriched superphosphate, concentrated and wet-base goods totaled 2,173,648 short tons in 1954, an increase of 1% from the 1953 total of 2,147,462 short tons. Shipments in 1954 totaled 1,322,537 short tons, up 2% from 1,292,089 short tons in 1953.

These figures break down as follows:

**Normal and enriched**—Production in 1954 was 1,644,488, down 2% from 1,678,459 in 1953. Shipments were 847,762 in 1954 and 850,970 in 1953.

**Concentrated**—Production in 1954 was 520,835, a 14% increase from 457,235 in 1953. Shipments in 1954 were 467,660, up 8% from 433,097 in 1953.

**Wet-base goods**—Production in 1954 was 8,325, a decrease of 29% from 11,768 in 1953. Shipments in 1954



were 7,115, down 11% from 8,022 in 1953.

In the same report, the Bureau of the Census noted that U.S. production of superphosphate for December amounted to 206,309 short tons (100% A.P.A.). This figure represents an increase of 7% from

the revised November 1954 output and is 19% more than the figure reported for the corresponding month of 1953.

Shipments of all grades of superphosphate totaled 108,920 tons for December or a decrease of 4% from the previous month's volume and a

9% increase from the figure reported for December 1953.

Stocks on hand at the end of December were 10% more than those held on December 1, 1954 and 12% more than the quantities on hand as of Dec. 31, 1953. These monthly figures (including percentage changes) are unadjusted for seasonal variation and number of working days.

The figures contained in the report are based on reports of 220 plants, eight of which produce concentrated superphosphate and three enriched superphosphate exclusively. Of these, 209 plants reported the manufacture of normal superphosphate (22% A.P.A. and less acidulated with sulfuric acid alone); nine plants reported the manufacture of enriched superphosphate (over 22% and under 40% A.P.A. acidulated with sulfuric and phosphoric acids); 21 concentrated superphosphate (acidulated with phosphoric acid alone); and six wet-base goods.

Data covering about one third of the producers are filed with the Bureau of the Census. Totals for the remaining companies are provided by the National Fertilizer Assn.

## American Potash Sales, Earnings Increase in 1954

LOS ANGELES—Sales and earnings of American Potash & Chemical Corp. in 1954 were higher than in the preceding year, Peter Colefax, president, said in his annual report to shareholders.

Net sales for the year ended Dec. 31, 1954, totaled \$23,631,032, compared with \$22,461,056 for 1953. The higher sales volume reflected increased deliveries of potash, and heightened demand for boron products, salt cake and lithium carbonate.

After all charges, including provision for federal taxes on income, net income in 1954 amounted to \$2,10,909, including \$143,810 profit after taxes from the sale of family housing at Trona, Cal., but without reflecting the company's proportionate interest in the earnings of Western Electrochemical Co.

After deducting preferred dividends, earnings were equal to \$4.38 per share on the 486,984 shares of Class A and Class B stock outstanding on Dec. 31.

For the year 1953, net income was \$2,116,082, equal after preferred dividend payments to \$4.01 per share on the 431,227 shares then outstanding.

If the company's proportionate interest in the earnings of Western Electrochemical Co. for the full year were included, earnings on the Class A and Class B stock would be \$4.69 per share for 1954.

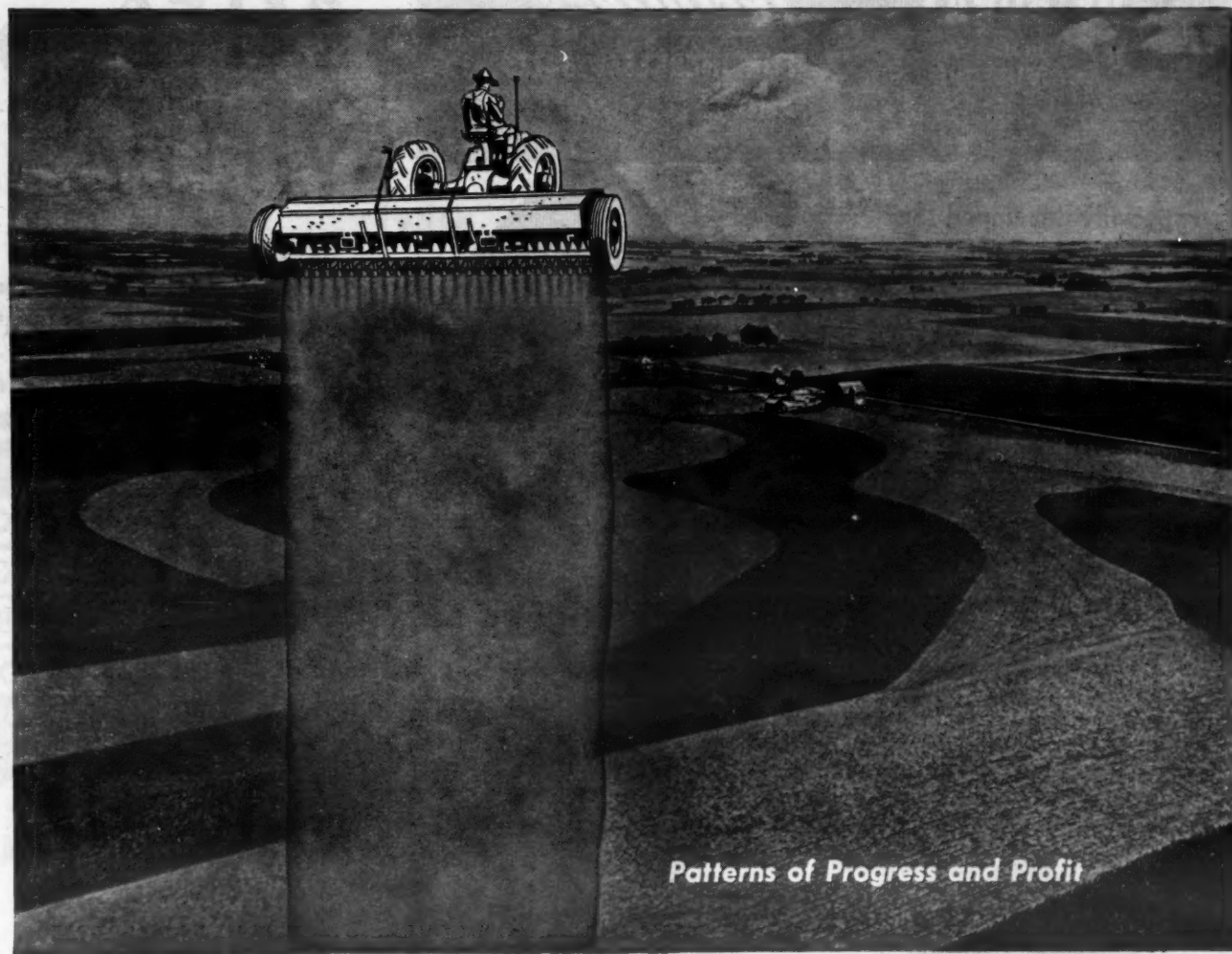
American Potash acquired 48.2% of the outstanding common stock of Western Electrochemical last October through an exchange of its Class B stock.

Mr. Colefax told the shareholders that the new lithium plant near San Antonio, Texas, is expected to begin operations towards the end of 1955. The plant will be owned by American Lithium Chemicals, Inc., 50.1% of whose stock is held by American Potash and the balance by Bikita Minerals (Private) Ltd.

A further increase in the company's research budget is scheduled for 1955, Mr. Colefax said. Particular emphasis is being placed on the lithium and boron fields.

### SHORT COURSE SET

ST. PAUL—The University of Minnesota's annual Horticulture Short Course will be held March 25-26 on the St. Paul campus, J. O. Christian, director of agricultural short courses, has announced.



(Photo—Courtesy Soil Conservation Service, U.S.D.A.)

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## INSECT AND PLANT DISEASE NOTES

### Tobacco Blue Mold Found in Georgia

TIFTON, GA.—Tobacco blue mold was identified Feb. 4 in two old plant-beds in Cook County. One of these beds had been seeded in November and the other the first of December. The disease was first observed on Jan. 29, at which time the largest plant leaves were about the size of a 5-cent piece. Only one or two small spots were observed in each bed Feb. 4 and the plants in the center of the affected areas were killed by the disease. These beds had been dusted five times before Feb. 4. Dusting had begun before symptoms of the disease had been seen.

Humidity and temperature conditions were ideal for both tobacco plant and blue mold development during late December and the first ten days of January, but beyond this, unfavorable conditions set in, with a freeze late in January.

Many growers with early beds have already dusted three to five times with Ferbam and Zineb dusts. It is

expected that all growers will dust or spray, but that some mold infection will occur in all beds within the next 60 days. The amount of disease damage in 1955 will be governed by weather conditions prevailing just before and during the time when the peak of activity is reached in the majority of beds; also by the efficiency of spray and dust programs.—Plant Disease Warning Service, USDA, Beltsville, Md. Paul R. Miller, principal pathologist.

### Khapra Beetle Hunt Reveals No Infestation

GAINESVILLE, FLA.—Inspection of six hundred bags of grain sorghum seed shipped into Florida from the khapra beetle infested area in Arizona, revealed no beetles in a recent survey made at Jacksonville.

In other areas, scattered insect pests of fruit, truck crops and cereals and forage crops were found. Leafhoppers in the adult stage were collected from St. Augustine grass in Broward county. Rhodes Grass seed in the adult state was collected at Crystal River and at Port Richey.

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establishing a new record in both places.

Grasshoppers averaging 3 nymphs and adults per square foot were collected from Para grass at Davie, Fla.

Banded cucumber beetle in the larval stage was causing minor infestations on early potatoes at Homestead. More were found on field margins than near middle of 80-acre fields. The cabbage aphid was reported to be causing scattered infestations on cabbage at Hastings. No damage was indicated from cabbage worms and a normal infestation of wireworms was reported on Irish potatoes.

## Cold Weather Curtails Farm Work in Mid-South

MEMPHIS — The return of cold weather is curtailing activities of Mid-South farmers, although many got into the fields and gardens for some ground breaking during the recent mild weather.

Extension officials in Arkansas, Mississippi and Tennessee said field activity increased in areas where the land was not too wet for spring plowing. The weekly survey by extension leaders disclosed farmers are optimistic over crop prospects because of the increased rainfall.

In Mississippi, where soil condition permitted, land breaking for 1955 got under way. Much land had been broken in the Delta, and home gardens were being planted in both hill and Delta areas of North Mississippi.

In some areas of Mississippi English peas are up to a good stand. Cabbage, onions and other hardy vegetables are set and planted, said R. H. Buckley, extension gardening specialist. Hotbeds are being planted for early April plants.

East Arkansas farmers will turn still more to soybean production this year, C. A. Vines, associate director of the Agricultural Extension Service, predicted. Mr. Vines said continuing cotton acreage and rice cuts, plus a shortage of ready labor in East Arkansas, will result in more soybeans.

He said the extension service has been conducting a series of cotton and rice acreage meetings in East Arkansas and that a "lot of interest" was being shown by farmers in how to get more production out of smaller acreages this year.

He said he noted on a recent trip that a "lot of ground" has been broken by farmers in preparation for spring plantings and that winter cover crops continued looking good.

In West Tennessee, Judd Brooks, district Extension agent at Jackson, reported most of the land was too wet for any field work and farm operations, except for livestock, were slowed.

## New Jersey Sales Total 289,614 Tons

NEW BRUNSWICK, N.J.—Sale of fertilizers and fertilizer materials in New Jersey during the fiscal year ended July 1 totaled 289,614 tons, according to Stacy B. Randle, state chemist. This included 266,035 tons of mixed fertilizer and 23,579 tons of materials.

Sales totaled 57,928 tons from July to December, and 231,686 tons during the last half of the fiscal year.

The leading mixed fertilizer was 5-10-10 with sales during the year of 151,211 tons. Sale of agricultural lime during the period totaled 300,790 tons.

## DIVERTED ACRE CROP

JACKSON, MISS.—Soybeans are a good crop to use on acreage that formerly was used for cotton, W. R. Thompson, Mississippi Extension agronomist, advised farmers recently.

## NAC MEETING

(Continued from page 1)

may be safely tolerated on food-stuffs.

In addition to Mr. Morse, the chief speakers on the program will be Fred Heinkel, president of Missouri Farmers Assn., Inc.; W. W. Allen, Dow Chemical Co., president of the National Agricultural Chemicals Assn.; Donald A. Wilbur, Kansas State College; John L. Gillis, Monsanto Chemical Co., and Mr. Hitchner.

On a panel discussing herbicides will be Dr. A. E. Carlson, E. I. DuPont de Nemours; Dr. M. W. Parker, U.S. Department of Agriculture; Dr. Lloyd Sherwood, Monsanto Chemical Co.; Hillard L. Smith, Dow Chemical Co., and R. D. Sweed, Cornell University.

The relatively new field of soil insecticides will be explored by Dr.

O. N. Allen, University of Wisconsin; Dr. Charles C. Compton, Shell Chemical Co.; George W. Decker, University of Illinois, and John H. Lilly, Iowa State College.

A lengthy discussion will center around the Miller Bill, with participants including Winton B. Rankin, Food and Drug Administration; Dr. W. G. Reed, U.S. Department of Agriculture; John D. Conner, NAC counsel, and Joseph A. Noone, NAC technical adviser. Mr. Hitchner will be the moderator.

## MORE OFFICE SPACE

WILMINGTON, DEL. — Hercules Powder Co. is to take over the space vacated by Atlas Powder Co. in the Delaware Trust Co. Atlas recently moved to its new office building here.

## Plans Set for Western Cotton Conference

PHOENIX—More than 400 cotton leaders from western states will gather for the Fourth Annual Western Cotton Production Conference to be held at Hotel Westward Ho in Phoenix March 8-9.

Conferees will consider insect control, disease and weed control, fertilization, defoliation and soil moisture. Attending will be farmers, representatives of the chemical industry, vocational agricultural workers, and land grant college and the U.S. Department of Agriculture representatives.

The meeting is sponsored jointly by the Arizona Cotton Growers Assn., Southwest Five-State Cotton Growers Assn. and the National Cotton Council. Mitchell Landers, president, Southwest Five-State Cotton Growers Assn., is conference chairman.

## Quality Fertilizer

with

# Sul-Po-Mag®

Water-Soluble Double Sulfate of Potash-Magnesia  
(K<sub>2</sub>SO<sub>4</sub> • 2MgSO<sub>4</sub>) 22% K<sub>2</sub>O—18% MgO

### wins new customers - keeps the old ones!

Dealers who sell quality fertilizers containing *Sul-Po-Mag* are ringing up new sales and getting more and more of that very profitable repeat business.

That's because fertilizers containing *Sul-Po-Mag* are better fertilizers . . . better balanced, more effective. They make extra profits for farmers whose soils need magnesium and potash.

*Sul-Po-Mag* in mixed fertilizers increases crop production by supplying a well-balanced combination of quick-acting, water-soluble sulfate of magnesium and sulfate of potash, a premium form of potash. Farmers get higher acre yields and improved quality of many crops.

For ten years, consistent farm paper advertising has been selling to farmers from coast to coast the benefits of using *Sul-Po-Mag*. You'll find the market ready to buy.

Manufacturers of leading fertilizers regularly include *Sul-Po-Mag* in their quality grades. You can make money handling those brands. And remember . . . when you sell a fertilizer containing *Sul-Po-Mag* . . . you're selling customer satisfaction.



**SUL-PO-MAG**  
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## STEEL PAILS

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### LUG CLOSURE POURING PAILS

Combination shipping and dispensing containers which insure safe delivery of your products and convenience in using them. Full opening for easy filling. Made of fine quality steel on modern production equipment to exacting standards.



### DRUM-TYPE CLOSED-HEAD CONTAINERS

Required for the shipment of many thin liquids, these Vulcan containers have welded side-seam, top and bottom double-seamed, and are offset at the top for solid stacking.

### STANDARD LUG-CLOSURE PAILS

Made in a wide range of trade sizes for liquid, dry and solid products, these sturdy pails have accurately formed cover lugs which are crimped beneath the curled rim of the pail to make a closure which defies all shipping hazards.



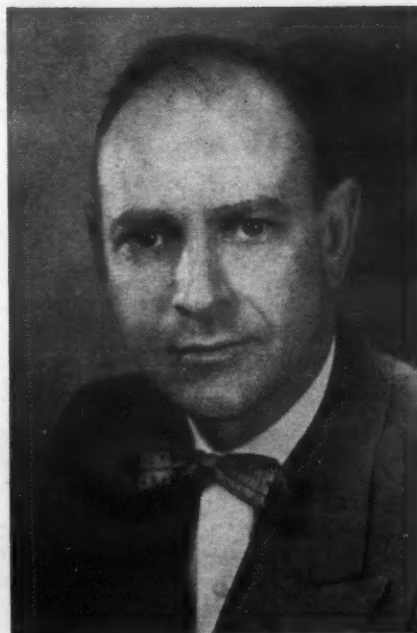
### HI-BAKE LININGS — POURING NOZZLES AND SPOUTS

Hi-Bake Linings are applied under the control of scientific instruments and are available in all styles of Vulcan pails and drums. Pouring openings may be had with Push-Pull Spouts and either screw or U-Pressit caps with tamper-proof seals—with reversible, flexible polyethylene spouts or other popular pouring nozzles and spouts as required.

*Samples gladly sent upon request*

Over 35 Years of Top Quality Containers  
"It's Better to Ship in Steel"

VULCAN STAMPING & MFG. CO.  
P.O. Box 161, Bellwood, Illinois (Suburb of Chicago)  
In Toronto, Canada—Vulcan Containers Limited  
Representatives in All Principal Cities



Russell E. Spivey

### Russell E. Spivey Named Manager of Smith-Rowland Co.

NORFOLK, VA.—Russell E. Spivey has been named general manager of the Smith-Rowland Co., manufacturers of nitrogenous tankage, and a division of Smith-Douglass Co., Inc. In making the announcement, J. A. Monroe, Smith-Douglass vice president in charge of procurement, traffic and export trade, said that W. W. Johnson, who had been Smith-Rowland's general manager, has resigned to take advantage of another business opportunity.

Mr. Spivey joined Smith-Douglass in 1951 as assistant to the vice president in charge of procurement and wholesale marketing, after 3½ years association with Colonial Stores. Born in Windsor, Va., in 1921, he attended Virginia Polytechnic Institute where he graduated in 1942 with a B. S. in vocational agriculture.

From 1942 to 1946 he served in the Paratroops and was released as a captain, after which he was associated with Swift and Co. in Wilmington, N.C., and Weaver Fertilizer Co. He is married and lives in Virginia Beach, Va.

Smith-Rowland operates plants in Norfolk, Va., Granite City, Ill. and Selbyville, Del.

### Net Sales of American Cyanamid Increase in 1954

NEW YORK—American Cyanamid Co. Feb. 15 announced the tentative operating results for 1954. Consolidated net sales for 1954 were approximately \$397 million, about 4% greater than the \$380 million for 1953.

Earnings before tax approximated \$51,050,000, slightly less than the \$52,472,000 reported for 1953. Related income taxes were \$24 million and \$25 million, respectively, so that consolidated net earnings were \$27,050,000 for 1954 against \$27,472,000.

After deducting dividends on the preferred stocks (\$1,310,397 for 1954 and \$238,447 for 1953), net earnings applicable to the common stock were \$2.95 per share on 8,722,921 in 1954 and \$3.15 on 8,646,261 for 1953.

Final financial statements will be included in the annual report to be released the forepart of March.

### Wisconsin Tonnage Increases in 1954

MADISON, WIS.—Fertilizer shipments in Wisconsin during 1954 totaled 433,713 tons, an increase of 2.6% over the 1953 figure of 422,656 tons, according to the State Department of Agriculture. The 1954 total includes more than 110,000 tons of 3-12-12.

### Spencer President Predicts Record Sales Volume

OMAHA — Increased facilities and an improved operating efficiency should give Spencer Chemical Co. a sales increase of about 7% over the previous fiscal year. When the results for the fiscal year ended June 30 are tabulated, the production from the new Vicksburg (Miss.) Works which is now operating at capacity will play an important role in effecting an all-time sales peak.

The prediction of a record volume in the face of a more seasonal sales pattern which resulted in decreased sales for the first six months of the fiscal year to Dec. 31, 1954, was made Feb. 16 by Kenneth A. Spencer, president, in a talk before the Omaha-Lincoln Society of Financial Analysts.

The basic nitrogen industry, he said, has been expanding for some time and some excess capacity is developing. As a result, a keenly competitive situation has resulted. While it may take several years for supply and demand to work back into balance, well established concerns such as Spencer Chemical will be able to "hold their own and carry on a very profitable business during the adjustment," he assured the group of analysts.

The company, he said, is meeting this by up-grading basic ammonia to more favorable products, such as ammoniating solutions and solid ammonium nitrate fertilizer and providing additional storage for the off-season. New facilities are being added and economies put into effect that should contribute to maintaining a satisfactory profit margin.

The company is entering the polyethylene market and should have its 14-million-dollar Orange, Texas, plant in operation next month.

"In the last fiscal year the company had sales amounting to \$34,100,000, and we anticipate a volume of nearly \$37,000,000 for the current fiscal year," Mr. Spencer told the analysts.

Mr. Spencer said that earnings prospects for the balance of the fiscal year, which will end June 30, are good. Heavy non-recurring expenses incident to putting the new Vicksburg plant into profitable production "are now behind us." "All of the operating plants are producing at capacity and we have entered the peak demand season for nitrogen products," he added.

### Gotcher Appoints Arkansas Distributor

CLARKSDALE, MISS. — The Gotcher Engineering and Manufacturing Co. of Clarksdale, Miss. has announced the appointment of the Arkansas Foundry Co. of Little Rock as distributor for its anhydrous ammonia equipment in Arkansas.

The Gotcher line of field application equipment includes tractor mounted, semi-mounted and pull-type ammonia applicators. The company also manufactures propane burning flame cultivators and tractor mounted sprayers for both weed and insect control.

### Research Farm

LEXINGTON, KY.—The Kentucky Utilities Co. has leased to the University of Kentucky, rent-free for 21 years, a 400-acre farm near Dix Dam on Herrington Lake, to be used for agricultural research. Frank J. Welch, director of the Agricultural Experiment Station, said the additional land will enable the experiment station to greatly increase its investigations of soils and crops.

### NATURE and PREVENTION of PLANT DISEASES By K. STARR CHESTER, Ph.D.

Stresses the practical aspects of plant disease control. Presents the essential features of plant pathology as exemplified in the leading diseases of important American crops. Extensive revisions of seed treatment, and spraying and dusting of fruits and vegetables are included. The latest developments in control practices, including the slurry, pelleting and vapor-heat methods of seed treatment, new non-metallic organic fungicides, innovations in methods of spraying and dusting are discussed.

525 Pages; 224 Illustrations .....\$5.00

### COMMERCIAL FERTILIZERS, Their Sources and Use 4th Edition, by GILBEART H. COLLINGS, Ph.D.

Based upon the author's practical experience as an experiment station agronomist and teacher. Incorporates information on recent developments by agronomists, chemists, engineers and fertilizer manufacturers. An authoritative source on all problems concerning commercial fertilizers and their use in gaining larger yields of field and horticultural crops.

522 Pages; 160 Illustrations .....\$5.00

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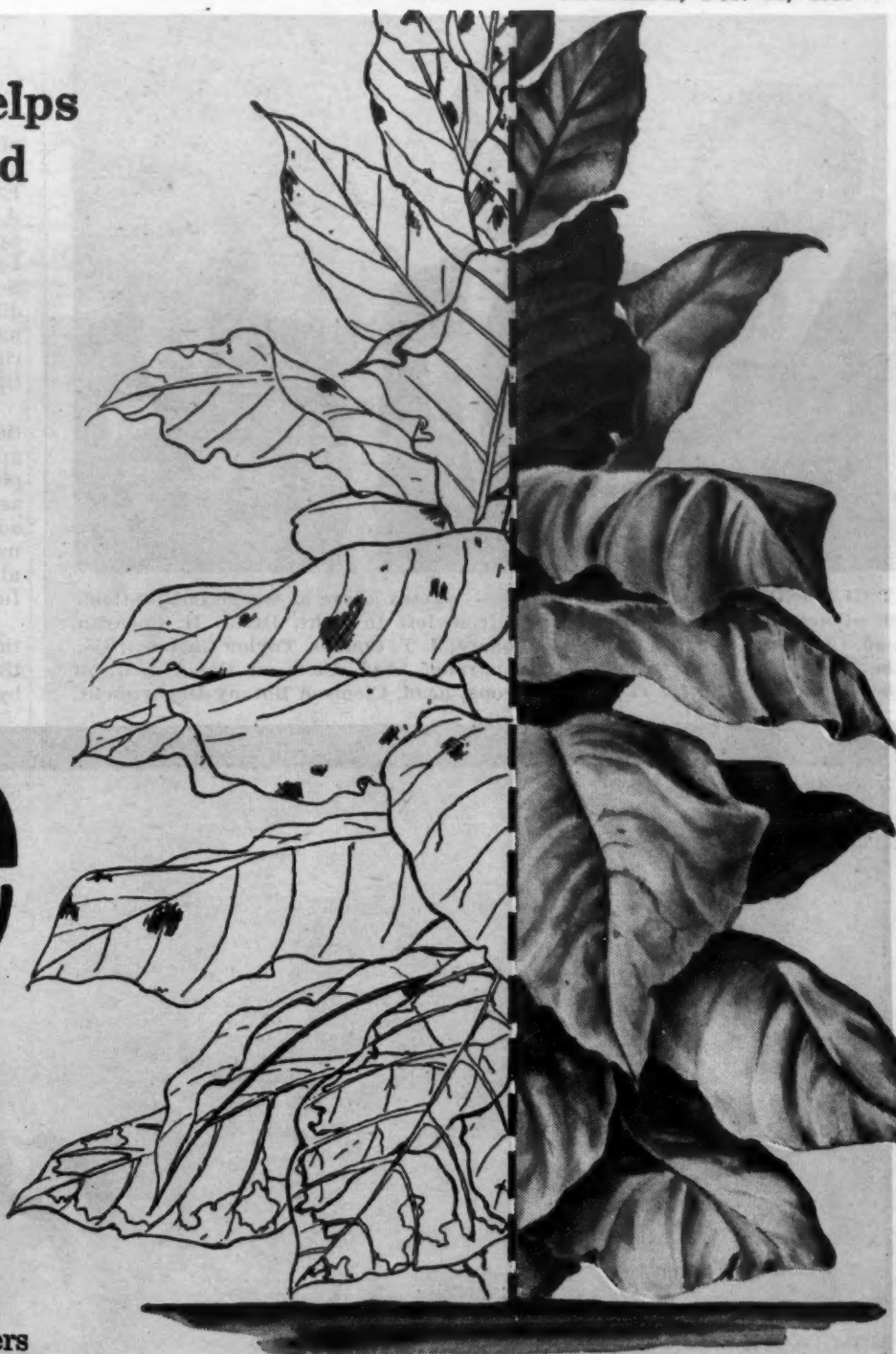
CROPLIFE, 2501 Wayzata Blvd., Minneapolis 5, Minn.



New antibiotic crop-saver helps insure a full, healthy stand

Now you can spray away

# Wildfire and Blue Mold



This spring, for the first time, burley tobacco growers have a powerful and effective control against the ravages of wildfire and blue mold. The balanced combination of antibiotics in Agri-mycin\* 100 gives positive control when a spray program as outlined below is followed.

The effectiveness of Agri-mycin 100 has been proved in large scale tests, conducted over the last three years, at state universities and on farms where infection was particularly severe. Tobacco stands in the Agri-mycin-treated plots were 100% healthy, while over one-half of the untreated plants were dead or dying of wildfire. The Agri-mycin-treated plants also had larger, more vigorous root systems.

Agri-mycin 100, unlike other sprays, is absorbed into the leaves and stems, fights the disease from within the plant. It is doubly effective because it contains the wide-range antibiotic Terramycin\*. Terramycin prevents development of streptomycin-resistant strains and at the same time actually increases the effectiveness of the streptomycin.

The years of tests with Agri-mycin 100 have resulted in the most effective and lowest cost wildfire and blue mold control program. Your regular supplier of spray materials has Agri-mycin 100 now. Use it this spring to help insure a top yield this crop-year.



One bottle of Agri-mycin\*100 makes 50-100 gallons of spray solution, depending on concentration employed.

## How to use for Wildfire and Blue Mold

### Recommended Concentration

200 parts per million.  
(One bottle makes 50 gallons.)

### First Spray

*For Wildfire.* When seedlings are in 2-leaf stage.

*For Blue Mold.* When seedling leaves are about 2 inches long.

### Follow-up Sprays

At least 4 sprays at 5 to 7 day intervals.

Additional ½ strength spray (100 ppm) may be applied weekly to extend control period.

**FOR CURATIVE ACTION:** Apply three weekly sprays at 400 ppm (2 bottles make 50 gallons) for cure of Wildfire.

# Agri-mycin\*100

\*Trademark

a product of

**Pfizer**

Chas. Pfizer & Co., Inc.

Brooklyn 6, New York

World's largest producer of antibiotics

Terramycin\* brand of Oxytetracycline





AT CLEMSON PESTICIDE SCHOOL — Shown above at the recent pesticide school held at Clemson College are, from left to right, Dr. J. H. Cochran, head, Clemson Department of Entomology; J. T. Conner, Taylor Chemical Co., Aberdeen, N.C., and Dr. G. M. Armstrong, head, Clemson Department of Aberdeen, N.C., and Dr. G. M. Armstrong, head, Clemson Botany Department.

## CLEMSON PESTICIDE SCHOOL

(Continued from page 1)

of this panel included W. M. Epps, associate plant pathologist, Truck Experiment Station, Charleston; C. A. Shipman, South Carolina Aerial Spraying Service, Laurens; E. H. Lynam, Jr., Sumter Aerial Dusting Service, Sumter; C. B. Culbertson, director of the South Carolina Aeronautical Commission, and Paul Carriker, Civil Aeronautics Administration, Columbia.

The panel discussed the qualifications of pilots participating in aerial application work and the different phases of problems dealing with the aerial application of insecticides. The advantages and disadvantages of using helicopters were discussed along with the possibility of their future use in South Carolina.

The application of granular insecticides with airplanes for control of the white fringe beetle was discussed by representatives of the U.S. De-

partment of Agriculture.

The morning session of the first day of the meeting was closed by Dr. J. H. Cochran, co-chairman of the school, with his talk on the registration and recommendations of pesticides.

During the afternoon, panel discussions were held on the control of insects, diseases and weeds affecting cotton; control of insects, diseases and weeds affecting tobacco; forage crop and pasture insect control; control of cereal crop pests in the field and in storage and ornamental and nursery pests.

During the panel discussion on insects, diseases and weeds affecting cotton, Dr. W. B. Albert, associate plant physiologist at Clemson, pointed out some of the experimental results obtained during the past three years on the chemical weed control in cotton.

He said that chemical weed control in cotton, when correctly used, can greatly reduce the man-hours of labor normally required for weed-control work. He cautioned however that effective and efficient use of the chemicals requires both fore-thought and attention to detail.

A highlight of the meeting was an address by James T. Conner, entomologist, Taylor Chemical Co., Aberdeen, N.C. He spoke at a supper meeting for the group held in the banquet room of the Clemson House Hotel. His subject was the effect of the Miller Bill on the pesticide formulator and dealers.

Dr. O. B. Garrison, director of the South Carolina Agricultural Experiment Station, opened the final day of school with a talk on the role of research in pest control work. He cited the tremendous losses South Carolina farmers absorb each year due to insects and weeds. He told of some of the part research is playing in solving some of these insect and weeds problems.

Dr. M. D. Farrar, Clemson's dean of agriculture, talked on the agricultural program in South Carolina.

Other panel discussions consisted of talks on information, materials and methods for the control of vegetable and fruit insects and diseases and on livestock insect control.

Dr. J. H. Cochran, head of the Department of Entomology, and Dr. G. M. Armstrong, head of the Department of Plant Pathology, were in charge of the school.

## W. J. Dibble Named To Sales Post with Pacific Coast Borax

NEW YORK — W. J. Dibble has been appointed general sales manager, Western Division, of Pacific Coast Borax Co., division of Borax Consolidated, Ltd., according to an announcement by J. F. Corkill, vice president in charge of sales.

In his new position Mr. Dibble will be responsible for industrial sales in the western states, and will have the over-all direction of the Agricultural Sales Division.

Mr. Dibble is a graduate of Knox College and Harvard School of Business Administration, and prior to joining Pacific Coast Borax Co. was associated with Oronite Chemical Division, Standard Oil Co. During World War II he served in the Navy and was discharged as a Lt. Commander. His headquarters will be in the company's offices at Los Angeles.

It was also announced by the company that E. M. Kitchen has been appointed industrial sales manager of the Western Division. Mr. Kitchen had previously been a sales representative in the Industrial Division, and prior to that time had been for many years in the Plant Food Division.



*life* to crops; **death** to insects

You can give new life and added vigor to your fruits or vegetables — and kill harmful insects at the same time — by adding GRACE UREA PRILLS to your regular pesticide sprays.

It's the simplest and quickest way to give your crops the supplemental nitrogen they need — over and above what is supplied to them in mixed fertilizers.

GRACE UREA PRILLS' fertilizing power — an unsurpassed 45% nitrogen — is full strength and quickly absorbed by foliage. You get top efficiency, because roots absorb any spray dropping to the ground. And GRACE UREA PRILLS are compatible with any commonly used spray material. This fertilizer is safe to handle, dissolves readily and does not corrode or clog spray equipment.

Suggested amounts for mixing with pest-control sprays are given in the chart at the right. Less concentrated solutions may be used, depending on the frequency of spraying and the specific nitrogen needs of your particular crop and soil.

Pounds GRACE UREA PRILLS suggested per 100 gals. Spray

VEGETABLES	LBS.
Tomatoes, cucumbers, cabbage, cauliflower, celery, lettuce, peppers, snap-beans, sweet corn, strawberries	4-5
Sweet potatoes	5-10
Potatoes	15
Carrots, parsley	20
FRUITS	
Apples	3-5
Cherries	5
Plums and Prunes	10



USE GRACE UREA PRILLS FOR ALL TYPES OF CROPS • IN IRRIGATION WATER • AS A TOP-DRESSING OR SIDE-DRESSING • WHEREVER NITROGEN IS NEEDED

AVAILABLE IN 80 LB. MULTIWALL SACKS FROM YOUR LOCAL DISTRIBUTOR



**GRACE CHEMICAL COMPANY**

HANOVER SQUARE, NEW YORK 4, N. Y.

Atlanta, Ga.

Chicago, Ill.

Memphis, Tenn.



# Better Selling

A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW

## Merchandising Program of North Carolina Firm Features Neat Displays and Demonstrations

By AL. P. NELSON  
Croplife Special Writer

Actual demonstrations of insecticides and other farm chemicals play an important part in the merchandising program of the Job P. Wyatt & Sons Co., Raleigh, N.C. Under the management of W. G. Quarles, the firm's seed department has been pushing soil fumigants, especially for tobacco lands. Mr. Quarles and his staff recently had an excellent display of a miniature seed bed and fumigant materials in a large window area, and it attracted much attention.

The demonstration seed bed was built right in the window area, with applicators and tubing inserted and the plastic covering over the bed. A large sign said, "MATERIAL NEEDED FOR 100 SQ. YDS. 9-1 lb. cans of Pestmaster; 1 Jiffy applicator with tubing; 1 plastic cover (16 ft. by 3 ft.)."

Another large sign stated: "CONTROL WEEDS, INSECTS. . . in Tobacco Seed Beds with Soil Fumigant." "Control weeds and grass seeds." "Control nematodes." "Control soil infecting insects." "Economical to use." "Easy to apply." "Fast acting and short aeration period."

This demonstration was of considerable interest to tobacco growers, many of whom are turning to soil fumigation in this area as a profitable procedure in raising a better tobacco crop. Field fumigation has been practiced in tobacco areas in this region for a considerable period, but soil fumigation is just now attracting considerable attention by many growers. It promises, Mr. Quarles believes, to help growers produce better and more tobacco.

The Wyatt firm has both a wholesale and retail division. The wholesale division services a large number of farm supply dealers in the area who handle seeds, insecticides and fertilizers. Salesmen cover a sizable territory. Principal crops in the region include tobacco, cotton, soybeans and truck crops.

In the retail store customers can find one of the largest displays of insecticides and similar materials in the area. Mr. Quarles has 40 ft. of wall shelving on one side of the store, shelving which resembles super market display fixtures. Stacked neatly on shelves in considerable quantity are spraying and dusting materials. Larger bins at the bottom of this display shelf setup are used for showing of many types of small hand sprayers, while on a top shelf are shown larger type sprayers.

A grower can find just about anything he wants in the way of dusting and spraying equipment and materials he needs here. Wyatt clerks are well versed in product knowledge and can inform customers what type of materials to use.

Part of the retail store is given over to an excellent showing of garden and lawn tools, as well as

power mowers and other equipment. Items like this fit in excellently with the retail store merchandising program, for homeowners need and will buy many of these extra items.

The retail seed section of the store has some excellent displays. One large self-service sign invites customers to serve themselves if they wish and to "Ask for items not on display." The sign also says, "we always have time to be friendly," and it states that the store sells flowering bulbs, flower pots, window boxes, garden gloves, garden tools, garden hose, sprinklers, weed killers, insecticides, sprayers, dusters, fertilizers, fertilizer spreaders and pickup carts.

In fact the entire seed department emphasizes display much as a modern hardware store. The store does have a hardware division as well, and entrance to it can be made from the big seed department. Customers go from one section of the store to another, finding many items to use for home, lawn and garden.

In addition to its wholesale and retail services, the firm also treats hybrid corn seed and cereal grains.

Mr. Quarles says that the educational work done by the state agricultural department, a special tobacco agent and the North Carolina State College is outstanding in the area. The tobacco grower, for example, who attends regional meetings and asks for advice from the tobacco agent and others, can get suitable information to help him cope with almost any management or disease problem. Because tobacco is such a high valuable cash crop in the area much attention is given by all agencies in agriculture to help the grower get the best crop for his investment.

In addition to telephone and direct mail advertising, the Wyatt firm also advertises once a week in a county farm page in a local newspaper. This special edition has excellent rural readership. Many farmers save these weekly sections for reference, and the ads in this section get a great deal of prolonged attention.

Officers of this firm include Wm. L. Wyatt, president; Robert J. Wyatt, vice president; Wm. L. Wyatt, Jr., vice president; M. F. Wyatt, treasurer; Ed M. Wyatt, assistant treasurer; Sam A. Jones, credit manager; P. T. Wyatt, secretary; Robt. J. Wyatt, Jr., assistant secretary, and Mr. Quarles, manager, seed department.

### Louisville Firm Moves

LOUISVILLE — Lose Brothers, a farm and garden supply firm for years at 206 East Jefferson St. here, has expanded and taken space in a new community center at Taylorsville Road and Hikes Lane, in suburban Louisville.



**DISPLAYS THAT SELL**—Shown in the upper photo is a soil fumigation window display, as it looked from the street, at the Job P. Wyatt & Sons Co., Raleigh, N.C. The lower photo shows a 40 ft. shelf of spraying and dusting equipment and materials. Customers are encouraged to serve themselves, if they wish.



### SHOP TALK

### OVER THE COUNTER

### FOR THE DEALER

By EMMET J. HOFFMAN  
Merchandising Editor

Dealers in Virginia, South Carolina, Tennessee and Arkansas have a welcome hand extended to them by state agricultural college specialists who urge farmers to make judicious use of fertilizer this spring to get a two- to three-weeks' grazing start with their pastures.

Well-fertilized pastures are ready for grazing two to three weeks earlier than unfertilized pastures, say these specialists. This actually means money in the farmer's pocket since pasture feeding costs less than other feeds and livestock does its own harvesting. A good shot of complete fertilizer put on pastures and haylands now will make them jump ahead with the earliest indication of spring weather, and enable them to stay ahead.

Dealers can make good use of these suggestions offered by their state university experts in their various forms of advertising and stimulate their early spring business.

Among the prominent authorities in the various states who encourage pasture fertilization now for earlier production are John F. Shoulders, extension agronomist, Virginia Polytechnic Institute at Blacksburg; H. A. Woodle, leader, agronomy extension work, Clemson Agricultural College; Webster Pendergrass, extension agronomist, University of Tennessee at Knoxville, and D. A. Hinkle, head, department of agronomy, University of Arkansas at Fayetteville.

From these university experts or the local county agent, dealers can secure the proper recommendations

and—backed by their thorough research knowledge — set advertising wheels in motion to bring the story of early spring fertilization of pastures to farmers. There is a lot of untapped business awaiting the alert dealer who follows through on this program.

### Sales Know-How

Few livelihoods expose a person more to the vagaries of humanity than does the field of selling. Salesmen deal with human beings and such dealings follow no well-defined formula. People aren't made up that way. Salesmen, by virtue of dealing constantly with people, gain much wisdom not obtainable in textbooks—and when they offer to speak out on their experience it's a good idea to listen closely.

A salesman in the farm supply field

(Continued on page 11)



# Better Selling

Richer Sales Fields for Dealers

CROPLIFE, Feb. 28, 1955

CROPLIFE



Doing Business With

## Oscar & Pat

Oscar Schoenfeld, slightly rotund and balding partner in the farm supply firm of Schoenfeld & McGillicuddy, sat at his neat desk, a frown on his face. Outdoors, a late winter snowstorm was piling up about eight inches of snow, a fact which had slowed fertilizer and other business to a halt.

"Now just look at that snow," he stormed. "That would have to happen to us just at a time when we'd be selling a lot of fertilizer. This will delay business another week or ten days."

"If those farmers would only put in their orders for fertilizer early, then we could have it here for them, and they could truck it to their barns for storage when the roads are passable. But will they do that—no!"

Tillie, the plumpish, nervous bookkeeper looked up from her work. "They don't want to order fertilizer early, because then they must pay for it and store it long before they'll have to use it," she said. "In one way, one can't blame the farmers."

"Huh," snorted Oscar, the economical one, "but they expect us to buy the fertilizer and pay for it, and hold it until they are good and ready to use it, and then they expect us to have every analysis fertilizer under the sun right here for them, ready for instant delivery. Makes me sick sometimes."

"I had an uncle once," mused Tillie timidly, "and he always used to say that every job and every business had a clinker in it. I suppose this slow spring ordering is the clinker in the fertilizer business. One has to live with his clinker, I guess."

"Yes, and I suppose I have to live with that—that—mess!" growled Oscar, pointing to the heaped up desk of his partner, Pat McGillicuddy, in sharp contrast to his own meticulous desk.

Oscar went back to work. He had already retrieved all the paper clips from the wastebaskets and put them into a glassbowl on his desk; he had already retrieved, too, all the rubber bands and put them into a special neat box on his desk; he had refigured all the discounts twice, to make sure he hadn't slipped up on getting any extra dimes due the firm on this score; he had also cleaned his desk, made a new list of delinquent accounts and put one list on Pat's desk, placing an ear of corn atop it for attention; and now—there just didn't seem to be anything else to do. Drat that snow anyway.

Suddenly Oscar slapped his hand on his desk. His eyes gleamed. "I've got it, I've got it!" he exclaimed triumphantly.

"Got what?" asked Tillie timidly.

Oscar's brown eyes gleamed. He began fishing a lot of pieces of paper out of the wastebaskets, bulletins, letters, etc. and then he piled them neatly on his desk. "There's no need to throw these away," he said eagerly. "This paper is only written on one side or mimeographed. The other side is blank—excellent for note paper. We can staple them together at the top, about 20 sheets to a pad, and—

and then we won't have to buy any note paper. That should save quite a bit in one year, and in five or ten years—" he took out his pencil and began figuring . . .

At this moment, tall, bushy haired Pat McGillicuddy came in, his gray

felt hat and stormcoat sprinkled with big snowflakes.

"Begorra, what a storm," he said, taking off coat and hat and hanging them up. "Well, I'll just have to use the phone to try to reach farmers and sell some fertilizer. Can't get out to

see them in this snow."

Oscar looked up, his eyes changed. "Well, be sure to make only local change calls," he said icily, "they don't cost so much. Our long distance calls are beginning to make as long a list as our delinquent accounts. This last was a barb directed at Pat because collections in the territory were largely his responsibility since he made so many field visits."

Pat chuckled, his blue eyes twinkling. "I get the point, Oscar, old man. And that suggestion about making local telephone calls is worthy try. Tell you what I'll do. I'll telephone five farmers within the local rate, then if I feel I sold enough fertilizer to make a good profit, I'll call five farmers in the long distance range."

"Huh," growled Oscar, stapling

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# Big, new profits for

## 115 million messages

in farm publications in 1955 will accelerate the sales of ARCADIAN Products for Profitable Farming. Month after month, your farm customers will be reading about ARCADIAN Products in national, regional and state farm magazines.

## MORE THAN 30 RADIO STATIONS

and over 1,000 LOCAL NEWSPAPERS will also carry the ARCADIAN advertising story to millions of farmers. This powerful campaign will produce MORE SALES. Will you get your share of this business?

The  
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# Better Selling

Richer Sales Fields for Dealers

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te paper into stacks of 20 sheets... ch. "Profit—there's no such thing... til you got the money locked in... e cash register. This book stuff—... ah. We got too much of it already."... Pat decided to drop the cost dis... ssion for the moment. He began... istling a gay Irish tune in a low... eble, as he looked over his desk... or something.

"Say, Oscar," he said in a puz... ed voice. "Seems to me we're hard... y getting any farm magazines any... ore. I miss them. Have our sub... scriptions run out."

"You bet they've run out—a lot of... em," Oscar said, crisply. "And when... e publishers wrote letters I told... em to take us off the list, that... e weren't interested in getting them... y longer."

"You did that?" Pat asked grimly, his face reddening. "Why?"

"Why?" choked Oscar throwing down a pencil and ignoring the fact that a sharp point broke. "You—you never read them anyway. Just look at your desk — all cluttered with magazines and newspapers. Look at that table—more magazines, they fall all over. Look at the top of the safe — stacked with magazines. Waste. Waste. Waste. It's time we cut down on it around this joint."

A silence settled over the office as the two men's minds clashed, without another word being spoken. Each could feel the hostility in the other's thinking. Tillie, the nervous book-keeper, inclined toward ulcers, reached for an ulcer powder and swallowed it. This always helped her get through these stormy sessions.

"So that's why I haven't been gettin' me magazines, begorra," Pat said. "I'll thank ye to ask me before ye cut them off." Pat always lapsed into an Irish brogue when angry.

"Bah," snapped Oscar who was never given to diplomacy. "What good are they to you? None, so far as I can see. You admit you can't read all of them—and you don't."

"That's true," Pat said slowly. "I don't read all of them, but I do look through them, and read some of the material. And it helps to sell. Even if I get just one little idea from each magazine it's worth it."

"You got too many ideas," Oscar growled. "Your ideas will bust us yet. If it wasn't for me—huh—" he broke off, but it was quite evident

what he meant.

Pat picked up a marked clipping on his desk. "Here is a valuable idea I picked up and I'm going to use it in an ad," he said pointedly. "This short article on fertilizer is taken from a middlewestern agricultural magazine. It urges farmers to buy fertilizer early, so they can get what they want, when they want it, and can get properly cured fertilizer. The article says that generally high analysis fertilizers move out first to farms, so if the farmer plans to stretch his fertilizer dollar by buying high analysis fertilizers, he'd better get his order in quickly. Now that is wonderful advertising for us."

Oscar thought for a moment. "Maybe we—we could use that," he conceded grudgingly. "But instead of taking 10 farm magazines like you been doin', we could take only one. And," triumphantly and characteristically, he went on, "if you—you would look through that one magazine very, very carefully, read every word of it, then we would get plenty of return for that \$3 a year investment. I would be in favor of that one subscription—but no more."

Pat McGillicuddy was silent for once. He gazed puzzledly at Tillie Mason, as he realized that Oscar would always be the one to squeeze the last drop of cider from a half spoiled apple; neither would he leave a speck of gravy on his plate without wiping it up with a corner of stale bread. But—Pat reflected—maybe it was a good thing he had a partner with a mind like that, irritating though Oscar could be at times, a partner possessing something that he, Pat, lacked.

"Maybe that's the way the Almighty balances things," Pat thought, "to keep an idea man like me from going off the deep end too often. Who knows?"

## OVER THE COUNTER

(Continued from page 9)

with over 40 years of sales work recently summarized his experiences with a few choice remarks. He called integrity a key factor in salesmanship and in the relations between a dealer and his salesmen, whether they are manufacturers' salesmen or the dealer's own salesmen.

A salesman with integrity is a man whose word is just as good as a banker's check, he explained.

Developing integrity begins at home "for a fellow first must learn to be honest with himself before he can practice honesty with anyone else."

The lessons this salesman has learned are applicable to farm chemical dealers, for they are primarily salesmen, too. Here are some of these lessons, in brief:

Never promise anything unless you are certain of carrying it out. If any doubts arise, check them out first.

Give an honest and truthful answer to inquiries and don't try to get by with a "flippant" reply.

Analyze what you have to offer. If you can't sell yourself on it, don't try to sell your customer.

Be well informed on your own products and services and keep your sales staff informed.

Success in selling is a mutual relationship of honesty and respect between the dealer and salesmen, and this is more important than high pressure methods and special gimmicks. The same applies to customers.

"Selling is always a stimulating challenge and with it comes the satisfaction of meeting and making life-long friends—your customers," he concluded.

# ts for YOU on the FAST-MOVING ARCADIAN LINE!

**The Biggest Advertising Campaign** in the history of the fertilizer industry will be working for you this year, if you handle the ARCADIAN line. Big, colorful advertisements in many leading farm magazines, steady farm radio promotion, and local newspaper advertising at the peak of the fertilizer buying season... never before has any fertilizer company given their dealers such a tremendous advertising boost. ARCADIAN is spending big money to help you make more sales and more profits.

Fast-stepping changes in agriculture are bursting the seams of old-line selling to farmers. ARCADIAN

fertilizer products are as modern as tomorrow's agriculture. New and better fertilizers and new and better equipment for applying them faster at lower cost are building a big, new market among your customers. ARCADIAN advertising is helping you to capture this market, if you handle the modern ARCADIAN line.



**TAKE ADVANTAGE of this great, new sales opportunity. Mail this coupon NOW!**

- ☐ UREA 45 Fertilizer  
45% Nitrogen Pellets
- ☐ 12-12-12 Granular  
Fertilizer
- ☐ American Nitrate of Soda  
Improved Granular
- ☐ A-N-L® Nitrogen Fertilizer  
Pelleted
- Nitrogen Solutions**
- ☐ Non-pressure  
URAN® and FERAN®
- ☐ Low-pressure  
NITRANA® and URASOL®

\*Trade-Mark

**NITROGEN DIVISION** Allied Chemical & Dye Corporation  
40 Rector St., New York 6, N. Y.

Please provide me full information on the products I have checked at the left.

☐ Please have an ARCADIAN salesman call on me.



NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_





## "Your Grandfather sold V-C® FERTILIZERS!"

**V-C FERTILIZERS** are known and trusted by this young man starting out in business.

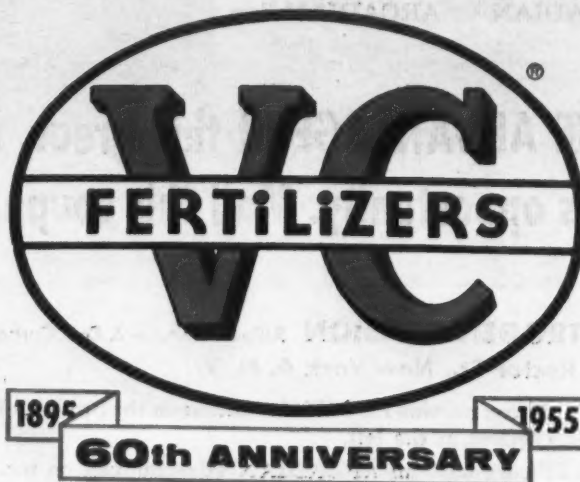
Ever since he can remember, his father and grandfather have been selling V-C Fertilizers and more and more good farmers in his neighborhood have been buying and using these better fertilizers.

For 60 years, in many communities in many states, Virginia-Carolina Chemical Corporation has been making and holding friends . . . agents and dealers like John Smith & Son . . . and good farmers everywhere who try V-C Fertilizers and then keep on buying and using V-C Fertilizers.

More than 5,000 reliable dealers have been supplying their customers V-C Fertilizers continuously for at least 10 years. Many of these dealers have handled V-C Fertilizers for 30, 40 or 50 years and longer.

Such well-established loyalty among so many fine folks is a mighty sound endorse-

ment for V-C Fertilizers. It means that year after year V-C practical farm experience, V-C scientific research and V-C manufacturing skill continue to provide better and better fertilizers for every crop on every soil. It also means that when you buy V-C Fertilizers, you are getting an honest and dependable product manufactured and sold by people who value your friendship and your confidence.



**VIRGINIA-CAROLINA CHEMICAL CORPORATION • RICHMOND 8, VIRGINIA**

Albany, Ga. • Atlanta, Ga. • Baltimore, Md. • Birmingham, Ala. • Carteret, N.J. • Cincinnati, Ohio • Columbia, S.C.  
Dubuque, Iowa • East St. Louis, Ill. • Fort Wayne, Ind. • Greensboro, N.C. • Hopkinsville, Ky. • Jackson, Miss. • Memphis, Tenn.  
Montgomery, Ala. • Norfolk, Va. • Orlando, Fla. • Richmond, Va. • Savannah, Ga. • Shreveport, La. • Wilmington, N.C.

### Heavy Fertilization of Corn Recommended In Louisiana

BATON ROUGE—Heavier fertilization than usually is practiced will pay Louisiana corn growers big dividends in higher yields, says the Louisiana State University Agricultural Extension Service.

Increased use of fertilizer is one of several steps which Extension says would enable Louisiana to grow twice as much corn with no increase in acreage. With cotton under a crop control program, corn is the state's biggest crop in acreage, but yields are low, 20 to 23 bu. an acre, on the average, and more corn is needed for livestock feed.

On the fertile and heavy alluvial soils, Extension says, corn needs 90 to 120 lb. nitrogen to the acre. On other soils, including light alluvial soils, 400 lb. per acre of 8-8-8, 6-8-8, 5-10-10, 6-12-16, or the equivalent fertilizer will be needed, put down before planting time or at planting time. The corn should be side-dressed with 50 to 80 lb. nitrogen. On these soils, corn needs a total of 70 to 100 lb. per acre of nitrogen, 25 to 50 lb. phosphoric acid, and 25 to 50 lb. potassium.

### Moisture Situation Improves in Texas

BIG SPRINGS, TEXAS — Recent rains and snow have put more moisture in Texas fields than they have held in two years. Throughout West Texas farmers are plowing their land and hoping to catch another good rain before planting time.

Cold weather in the Rio Grande area has killed 20% of the valley's tomato plants. Some young cotton and corn were killed by the frost.

Cold weather in West and North Texas slowed down oats and wheat pastures for a few weeks, but they are coming out now.

A large number of the pink bollworms were casualties of the cold wave. One authority stated that perhaps two thirds of the hibernating worms had been wiped out by the sub-freezing temperatures.

### 140 Bu. Yield Wins Kentucky Corn Derby

LEXINGTON, KY. — A yield of 140.4 bu. corn an acre made Fleece Gooch, Lincoln County, winner in the five-acre division of the 1954 Kentucky Corn Derby. George Wooton, Leslie County, was named state corn-growing champion in the one-acre division for his yield of 197.6 bu.

Both Mr. Gooch and Mr. Wooton used soil tests as a guide in the application of fertilizers. Both prepared excellent seedbeds and both sidedressed their crops with ammonium nitrate.

Mr. Gooch turned under a cover crop of knee-high vetch and wheat on which he had spread 4 tons of manure to the acre. At planting time, he applied 400 lb. 0-20-20 and 300 lb. 5-10-15 to the acre. When his corn was about 3 ft. high, he sidedressed it with 175 lb. 33% ammonium nitrate per acre.

Mr. Wooton plowed under a cover crop of vetch on which he had broadcast 1,500 lb. 20% superphosphate. He applied 300 lb. 4-12-8 when he planted the corn on June 10. When the corn was about 3 ft. high, he sidedressed it with 100 lb. of 33% ammonium nitrate. Mr. Wooton sprayed his crop with 2,4-D when the corn had produced 3 blades.

### Cotton Contest

CLEMSON, S.C.—With an official yield of 5,900 lb. lint cotton produced on five acres, J. C. Bouknight, Irmo, Richland County, is the winner in the 1954 South Carolina Five-Acre Cotton Contest.





## RINGING THE cash register

### Merchandising Hints for The Retailer

Dun & Bradstreet, Inc., reports that average operating profit on sales varies widely in 33 different lines of retail trade it checked in a recent survey. They range from only 0.9% for the typical small department store up to 9.2% for the typical sporting goods store. Average operating expense and gross margin vary just as much, if not more so, among the 33 retail lines. Installment jewelers, restaurants, and taverns have the highest operating expenses on the average, but those lines also work on the biggest gross margins. On one end of the scale is the typical farm supply store which has expenses totaling only 11.9%



of sales, but which has also only a 13.9% gross operating margin. It offers reason for retailers of farm supplies to watch closely such things as inventory turnover, cost of goods, bad debts, occupancy cost and net operating profit because of the relatively small operating margin.

Special sales promotions will have more meaning for the customer if a few simple and inexpensive gadgets—like arm bands, buttons or small “teaser” signs—are used in connection with the sale. These can help the salesmen’s selling power by helping to excite the customer’s curiosity and by practically forcing the salesmen to satisfy that curiosity.

Dealers who have no highway signs out at the present time should start making plans for placing at least one or two this spring. If the advertising budget does not permit the installation of one on every main highway leading into your city this spring, start the job this year and complete it next year. These signs should be sturdily constructed and carry a simple message. Remember the prospect driving by must be able to read your message in one brief glance.

It is essential that a dealer maintain a proper attitude toward his merchandise and the price he sells it. One sales executive claims that “If we tackle a selling job with the thought that the customer is going to beat us down on price, or that we must meet the lower price which a competitor has reputedly offered, the odds are that we will wind up not selling, but merely attempting to get an order by accepting an unprofitable sale.”

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The longer a former customer stays away the harder it is to get him back. Merchants have used various devices to bring back what are regarded as lost customers, among them direct mail, telephone calls and personal calls. However, the greatest potentiality for increased business lies in the present customers. That is why regular customers should not be taken for granted and real effort must be made to keep them as regular customers. It’s much costlier to win them back as customers than keeping them as satisfied, regular buyers.

Small  
Margin

Use  
Teasers

Highway  
Signs

Watch Your  
Attitude

One Big  
Advantage

Sales  
Meetings

Hang onto  
Customers

## Insure against wireworms for only 16c per acre

**ISOTOX 25 Seed Treater F controls  
wireworms, seed corn maggots, and other  
soil insects—also gives added disease  
protection at planting time**

It’s the most effective and economical seed treatment you can buy! For only about 16¢ per acre ISOTOX 25 Seed Treater F gives you *dollars upon dollars* of crop protection from wireworms, seed corn maggots. Also gives added disease protection to seeds previously treated with fungicide.

Over 5,000,000 acres have been treated with ISOTOX Seed Treater during the past five years, proving to thousands of farmers that ISOTOX brings top germination... insures bigger yields, healthier stands... saves “extra” seed costs... saves time and labor of replanting due to insect damage. Last planting season, more than 20,000 new farmer users specified ISOTOX 25 Seed Treater F.

For low-cost “life insurance” for your crops—insist on ISOTOX—the pioneer seed treater—designed exclusively for seed treatment. Recommended for corn, soybeans, beans, cotton and many other crops.



CALIFORNIA SPRAY-CHEMICAL CORP.  
(Offices throughout U.S.A.)

T.M.'S REG. U.S. PAT. OFF.: ORTHO, ISOTOX

## Available Now!

### Reprints of Croplife's Feature

## Bug of the Week

Twenty four of the insects described in Croplife's weekly feature, “Bug of the Week,” have been reprinted into an attractive 8½ x 11 inch booklet for distribution to the trade. The price is 25c each in quantities up to 100; 20c each in quantities of 100-1,000, and 15c each in quantities over 1,000. Firms may have their names imprinted on the back cover at a moderate extra charge.

Included in the booklet are the following insects:

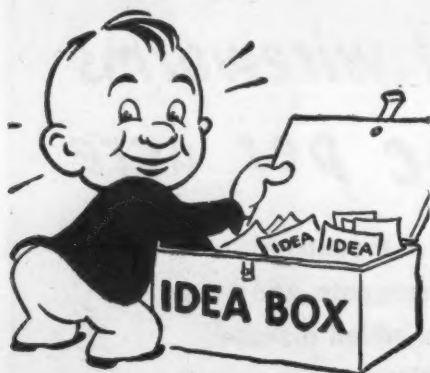
Alfalfa Weevil	Northern Corn Rootworm
Armyworm	Onion Thrip
Boll Weevil	Plum Curculio
Chinch Bug	Potato Leafhopper
Cotton Bollworm	Seed Corn Maggot
Cutworm	Sweetclover Weevil
Grasshopper	Tarnished Plant Bug
Imported Fire Ant	Tobacco Hornworm
Lawn Chinch Bug	Tomato Hornworm
Lygus Bug	Tuber Flea Beetle
Meadow Spittlebug	White Grub
Mosquito	Wireworm

Order From Reprint Department

## Croplife

P.O. Box 67  
Minneapolis 1, Minnesota





## What's New...

### In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

#### No. 6213—Lawn Fertilizer

Smith-Douglass Company, Inc., has introduced its new plant food, called by the trade name of Nutro plant food pellets, in southeastern U.S. The product is pelletized and homogenized (see photo) and literature describing it states that it is clean, dustless and odorless. Formulated with the home gardener in mind, it can be used spread by hand or with a spreader. It is not necessary to



rake or wash down the fertilizer, it is claimed, since the pellets bounce off the leaf to the ground. It is packaged in 10, 25, 50 and 100-lb. bags, and comes in two forms—regular or instant. The instant form dissolves in water, and can be used for foliage and root feeding. In liquid form it can be sprinkled on leaves for foliage feeding, poured around the roots as

a starter, or sprayed on large areas. Instant Nutro, it is explained, can also be used in the dry form. Also being manufactured is Nutronite, an all organic (animal waste) fertilizer with 9% nitrogen. To secure literature describing these products check No. 6213 on the coupon and drop it in the mail.

#### No. 6215—Cotton Herbicide

Geigy Agricultural Chemicals has announced a new herbicide for cotton. Designated as Geigy 444, the compound is 2-chloro-4, 6-bis-(diethylamine)-s-triazine. Excellent results as a pre-emergence and post-emergence herbicide, in directed as well as overall applications are claimed. Rates as high as 24 lb. per acre have been applied as pre-emergence treatments without phytotoxic effects. Directed and overall post-emergence sprays, applied at a rate of 12 lb. of the product per acre produced no reduction in growth. Slight burning resulted from overall applications. Successful tests on other crops, including lima beans and peas, have been made, with varying control of nutgrass, broadleaved weeds and annual grasses being obtained. For further information and experimental quantities, qualified research personnel are invited to check No. 6215 on the coupon and drop it in the mail.

#### No. 6209—Weed Control

E. I. du Pont de Nemours & Co. has prepared new literature on its product, Karmex DL, a herbicide for pre-emergence weed control in cotton. The product is described as a liquid having the consistency of paint and which mixes readily with water to form a suspension. Each half gallon used as a band application will treat 3-6 acres depending on dosage, width of band and row spacing. Used as a broadcast application, it will treat 1½-1¾ acres. Weed and grass seedlings such as crabgrass, pigweed, purslane, lambs' quarters and ragweeds can be controlled, according to a company folder. Information on spray equipment, calibration and usage is available. Check No. 6209 on the coupon and mail it to this newspaper.

#### No. 6214—Fertilizer Brochure

A new brochure entitled, "Make Bigger Profits with USS Ammonium Sulphate," has been published by United States Steel Corp. The color brochure presents a breakdown by crops (corn, oats, wheat, barley, rye permanent and supplementary grass and apple and peach trees) with recommendations for quantities of ammonium sulphate per acre, method of application, when to use and various suggestions for its use. Sections are devoted to fall application of fertilizer and returns possible through use of the company's product on pastures and small grains. Check No. 6214 on the coupon, clip and mail it to secure the brochure.

### Also Available

The following items have appeared in the What's New section of recent issues of Crop-life. They are reprinted here to help keep retail dealers on rotational circulation informed of new industry products, literature and services.

#### No. 6201—Insecticide

A new insecticide for controlling house flies and other insects has been announced by Carbide & Carbon Chemicals Co., a division of Union Carbide and Carbon Corp. It has been given the name "cyclethrin" and is chemically related to allethrin. A company announcement states that "Cyclethrin is synergized by readily available synergists to a far greater extent than is allethrin. Therefore, it can be used to advantage in oil space sprays and in low-pressure aerosols for use against house flies, gnats and mosquitoes. Cyclethrin is more effective when used in dairy and livestock sprays. Field tests have shown that treading spray concentrates containing cyclethrin afford dairy and beef animals excellent protection from horse flies. In addition, sulfoxide and piper-

onyl butoxide synergizes cyclethrin better than allethrin for knockdown of German roaches. Cyclethrin has the same low order of toxicity to warm-blooded animals as allethrin or pyrethrins."

The product is available at the present in limited quantities for test purposes. To secure more complete details check No. 6201 on the coupon and drop it in the mail.

#### No. 5050—Laboratory Carts

The Laboratory Construction Co., manufacturer of laboratory equipment, has published a new booklet "Put Wheels to Work in Your Laboratory." The folder describes special



purpose carts and portable tables. It shows the variety of uses carts serve and how they speed laboratory work, reduce breakage of glassware and instruments, help cut labor costs and add mobile work space. Illustrated is the new tote box cart which is ideal for the carrying of grain and feed samples either in small packages or bulk. It is one of the nine special carts and portable tables illustrated in the booklet. Other types are glassware carts, chemical carts, flask carts and portable instrument carts. Diagrams, descriptions and prices are included. For a free copy please check No. 5050 on the coupon and drop it in the mail.

#### No. 6204—Plant Antibiotic

Agri-mycin 100, trade name for an antibiotic spray powder, is described in a new bulletin recently released by the Agricultural Sales Division of Chas. Pfizer & Co., Inc. The bulletin's summary states: "Agri-mycin 100, an antibiotic formulation of Streptomycin and Terramycin, is recommended for the control of a number of plant diseases. The possibility of building up resistant strains is greatly reduced by using this combination of antibiotics. The active ingredients of Agri-mycin 100 are readily soluble and are rapidly absorbed by the plant, providing systemic protection. Agri-mycin 100 is a stable, free-flowing, noncorrosive, fine powder intended for use in standard sprayers." To secure this bulletin check No. 6204 on the coupon, clip and mail it to the address provided.

#### No. 5091—Heating Tape

The Miller Manufacturing Co. has announced new developments in its product called by the trade name, Little Giant No-Freeze heating tape. Suitable for poultry and livestock fountains, as well as for various uses in industrial plants and factories, the product is claimed to resist oil, grease, mild acids and alkalis; can be operated continuously at temperatures up to 176° and works off an

#### Send me information on the items marked:

- |  |  |
|--|--|
| <input type="checkbox"/> No. 3661—Sales Leaflet        | <input type="checkbox"/> No. 6201—Insecticide      |
| <input type="checkbox"/> No. 5050—Carts                | <input type="checkbox"/> No. 6202—Spit Duster      |
| <input type="checkbox"/> No. 5063—Broadcaster          | <input type="checkbox"/> No. 6204—Plant Antibiotic |
| <input type="checkbox"/> No. 5091—Heating Tape         | <input type="checkbox"/> No. 6208—Pesticide        |
| <input type="checkbox"/> No. 6191—Dispenser            | <input type="checkbox"/> No. 6209—Weed Control     |
| <input type="checkbox"/> No. 6199—Alkylanilines        | <input type="checkbox"/> No. 6213—Lawn Fertilizer  |
| <input type="checkbox"/> No. 6200—Moisture Measurement | <input type="checkbox"/> No. 6215—Herbicide        |
|  | <input type="checkbox"/> No. 6214—Brochure         |

NAME .....

COMPANY .....

ADDRESS .....

CLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL

FIRST CLASS  
PERMIT No. 2  
(Sec. 349,  
P. L. & R.)  
MINNEAPOLIS,  
MINN.

### BUSINESS REPLY ENVELOPE

No postage stamp necessary if mailed in the United States

### POSTAGE WILL BE PAID BY—

Croplife

P. O. Box 67,

Reader Service Dept.

Minneapolis 1, Minn.





## RINGING THE cash register

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protection at planting time**

It's the most effective and economical seed treatment you can buy! For only about 16¢ per acre ISOTOX 25 Seed Treater F gives you *dollars upon dollars* of crop protection from wireworms, seed corn maggots. Also gives added disease protection to seeds previously treated with fungicide.

Over 5,000,000 acres have been treated with ISOTOX Seed Treater during the past five years, proving to thousands of farmers that ISOTOX brings top germination... insures bigger yields, healthier stands... saves "extra" seed costs... saves time and labor of replanting due to insect damage. Last planting season, more than 20,000 new farmer users specified ISOTOX 25 Seed Treater F.

For low-cost "life insurance" for your crops—insist on ISOTOX—the pioneer seed treater—designed exclusively for seed treatment. Recommended for corn, soybeans, beans, cotton and many other crops.



# ORTHO

SCIENTIFIC PEST CONTROL

CALIFORNIA SPRAY-CHEMICAL CORP.  
(Offices throughout U.S.A.)

T.M.'S REG. U.S. PAT. OFF.: ORTHO, ISOTOX

## Available Now!

Reprints of Croplife's Feature

## Bug of the Week

Twenty four of the insects described in Croplife's weekly feature, "Bug of the Week," have been reprinted into an attractive 8½ x 11 inch booklet for distribution to the trade. The price is 25c each in quantities up to 100; 20c each in quantities of 100-1,000, and 15c each in quantities over 1,000. Firms may have their names imprinted on the back cover at a moderate extra charge.

Included in the booklet are the following insects:

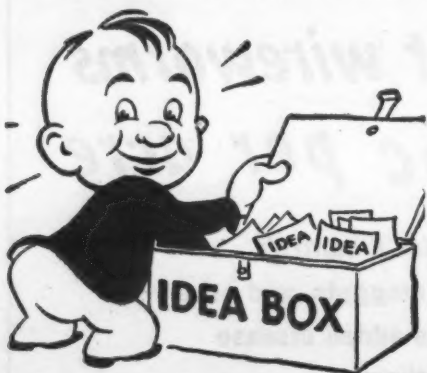
Alfalfa Weevil	Northern Corn Rootworm
Armyworm	Onion Thrip
Boll Weevil	Plum Curculio
Chinch Bug	Potato Leafhopper
Cotton Bollworm	Seed Corn Maggot
Cutworm	Sweetclover Weevil
Grasshopper	Tarnished Plant Bug
Imported Fire Ant	Tobacco Hornworm
Lawn Chinch Bug	Tomato Hornworm
Lygus Bug	Tuber Flea Beetle
Meadow Spittlebug	White Grub
Mosquito	Wireworm

Order From Reprint Department

# Croplife

P.O. Box 67  
Minneapolis 1, Minnesota





## What's New...

### In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

#### No. 6213—Lawn Fertilizer

Smith-Douglass Company, Inc., has introduced its new plant food, called by the trade name of Nutro plant food pellets, in southeastern U.S. The product is pelletized and homogenized (see photo) and literature describing it states that it is clean, dustless and odorless. Formulated with the home gardener in mind, it can be used spread by hand or with a spreader. It is not necessary to



rake or wash down the fertilizer, it is claimed, since the pellets bounce off the leaf to the ground. It is packaged in 10, 25, 50 and 100-lb. bags, and comes in two forms—regular or instant. The instant form dissolves in water, and can be used for foliage and root feeding. In liquid form it can be sprinkled on leaves for foliage feeding, poured around the roots as

a starter, or sprayed on large areas. Instant Nutro, it is explained, can also be used in the dry form. Also being manufactured is Nutronite, an all organic (animal waste) fertilizer with 9% nitrogen. To secure literature describing these products check No. 6213 on the coupon and drop it in the mail.

#### No. 6215—Cotton Herbicide

Geigy Agricultural Chemicals has announced a new herbicide for cotton. Designated as Geigy 444, the compound is 2-chloro-4, 6-bis-(diethylamine)-s-triazine. Excellent results as a pre-emergence and post-emergence herbicide, in directed as well as overall applications are claimed. Rates as high as 24 lb. per acre have been applied as pre-emergence treatments without phytotoxic effects. Directed and overall post-emergence sprays, applied at a rate of 12 lb. of the product per acre produced no reduction in growth. Slight burning resulted from overall applications. Successful tests on other crops, including lima beans and peas, have been made, with varying control of nutgrass, broadleaved weeds and annual grasses being obtained. For further information and experimental quantities, qualified research personnel are invited to check No. 6215 on the coupon and drop it in the mail.

#### No. 6209—Weed Control

E. I. du Pont de Nemours & Co. has prepared new literature on its product, Karmex DL, a herbicide for pre-emergence weed control in cotton. The product is described as a liquid having the consistency of paint and which mixes readily with water to form a suspension. Each half gallon used as a band application will treat 3-6 acres depending on dosage, width of band and row spacing. Used as a broadcast application, it will treat 1 1/4-1 1/2 acres. Weed and grass seedlings such as crabgrass, pigweed, purslane, lambs' quarters and ragweeds can be controlled, according to a company folder. Information on spray equipment, calibration and usage is available. Check No. 6209 on the coupon and mail it to this newspaper.

#### No. 6214—Fertilizer Brochure

A new brochure entitled, "Make Bigger Profits with USS Ammonium Sulphate," has been published by United States Steel Corp. The color brochure presents a breakdown by crops (corn, oats, wheat, barley, rye permanent and supplementary grass and apple and peach trees) with recommendations for quantities of ammonium sulphate per acre, method of application, when to use and various suggestions for its use. Sections are devoted to fall application of fertilizer and returns possible through use of the company's product on pastures and small grains. Check No. 6214 on the coupon, clip and mail it to secure the brochure.

### Also Available

The following items have appeared in the What's New section of recent issues of CropLife. They are reprinted here to help keep retail dealers on rotational circulation informed of new industry products, literature and services.

#### No. 6201—Insecticide

A new insecticide for controlling house flies and other insects has been announced by Carbide & Carbon Chemicals Co., a division of Union Carbide and Carbon Corp. It has been given the name "cyclothrin" and is chemically related to allethrin. A company announcement states that "Cyclothrin is synergized by readily available synergists to a far greater extent than is allethrin. Therefore, it can be used to advantage in oil space sprays and in low-pressure aerosols for use against house flies, gnats and mosquitoes. Cyclothrin is more effective when used in dairy and livestock sprays. Field tests have shown that treadle spray concentrates containing cyclothrin afford dairy and beef animals excellent protection from horse flies. In addition, sulfoxide and piper-

onyl butoxide synergizes cyclothrin better than allethrin for knockdown of German roaches. Cyclothrin has the same low order of toxicity to warm-blooded animals as allethrin or pyrethrins."

The product is available at the present in limited quantities for test purposes. To secure more complete details check No. 6201 on the coupon and drop it in the mail.

#### No. 5050—Laboratory Carts

The Laboratory Construction Co., manufacturer of laboratory equipment, has published a new booklet "Put Wheels to Work in Your Laboratory." The folder describes special



purpose carts and portable tables. It shows the variety of uses carts serve and how they speed laboratory work, reduce breakage of glassware and instruments, help cut labor costs and add mobile work space. Illustrated is the new tote box cart which is ideal for the carrying of grain and feed samples either in small packages or bulk. It is one of the nine special carts and portable tables illustrated in the booklet. Other types are glassware carts, chemical carts, flask carts and portable instrument carts. Diagrams, descriptions and prices are included. For a free copy please check No. 5050 on the coupon and drop it in the mail.

#### No. 6204—Plant Antibiotic

Agri-mycin 100, trade name for an antibiotic spray powder, is described in a new bulletin recently released by the Agricultural Sales Division of Chas. Pfizer & Co., Inc. The bulletin's summary states: "Agri-mycin 100, an antibiotic formulation of Streptomycin and Terramycin, is recommended for the control of a number of plant diseases. The possibility of building up resistant strains is greatly reduced by using this combination of antibiotics. The active ingredients of Agri-mycin 100 are readily soluble and are rapidly absorbed by the plant, providing systemic protection. Agri-mycin 100 is a stable, free-flowing, noncorrosive, fine powder intended for use in standard sprayers." To secure this bulletin check No. 6204 on the coupon, clip and mail it to the address provided.

#### No. 5091—Heating Tape

The Miller Manufacturing Co. has announced new developments in its product called by the trade name, Little Giant No-Freeze heating tape. Suitable for poultry and livestock fountains, as well as for various uses in industrial plants and factories, the product is claimed to resist oil, grease, mild acids and alkalies; can be operated continuously at temperatures up to 176° and works off an

#### Send me information on the items marked:

- |  |  |
|--|--|
| <input type="checkbox"/> No. 3661—Sales Leaflet        | <input type="checkbox"/> No. 6201—Insecticide      |
| <input type="checkbox"/> No. 5050—Carts                | <input type="checkbox"/> No. 6202—Spit Duster      |
| <input type="checkbox"/> No. 5063—Broadcaster          | <input type="checkbox"/> No. 6204—Plant Antibiotic |
| <input type="checkbox"/> No. 5091—Heating Tape         | <input type="checkbox"/> No. 6208—Pesticide        |
| <input type="checkbox"/> No. 6191—Dispenser            | <input type="checkbox"/> No. 6209—Weed Control     |
| <input type="checkbox"/> No. 6199—Alkylanilines        | <input type="checkbox"/> No. 6213—Lawn Fertilizer  |
| <input type="checkbox"/> No. 6200—Moisture Measurement | <input type="checkbox"/> No. 6215—Herbicide        |
|  | <input type="checkbox"/> No. 6214—Brochure         |

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PERMIT No. 2  
(Sec. 34.9,  
P. L. & R.)  
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No postage stamp necessary if mailed in the United States

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Minneapolis 1, Minn.



## The Bulletin Board

No. 6 in a series from the Spencer Chemical Company Magazine, "Today's Fertilizer Dealer."

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tributes all varieties of seed (including Brome), sowing up to 20 acres per hour and covering areas up to 30 ft. wide. Push-button operation is made possible when the unit is drawbar mounted. Only three bolts and a single wire are used to mount the unit, ready for operation. All motors are sealed against dust and, in addition, are factory lifetime lubricated. To secure more complete details check No. 5063 on the coupon and mail it to this newspaper.

### No. 6208—Pesticide

VAPAM, a new pesticide, has been announced by the Stauffer Chemical Co. Consisting of sodium N-methyl dithiocarbamate, this product is claimed to be stable in the commercial concentrated solution, but decomposes rapidly in damp soil to liberate a penetrating gas which dissipates in a few days. Under most conditions, crops may be planted within seven days after soil treatment. A general purpose soil fumigant, VAPAM is said to control practically all types of soil-borne diseases, nematodes, growing weeds and weed seeds, as well as certain species of soil infesting insects and related pests. Although especially suitable for seed bed treatment, VAPAM also shows promise for a wide range of soil problems a company release states. The product is highly soluble in water and requires no special equipment. VAPAM can be introduced into the soil through irrigation equipment, to the plow sole, or to the ground surface in connection with the use of a rototiller. With suggested methods of application no ground coverings are required. To secure more complete details check No. 6208 on the coupon and mail it to this newspaper.

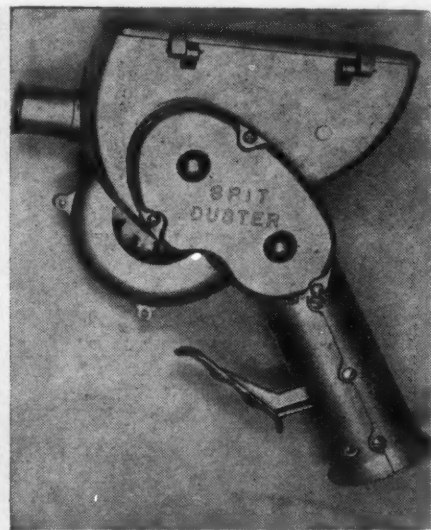
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Secrets of the success story behind fertilizer dealer Preuit Simms are told in the article below. Pictures above show Simms' first store in 1947 (inset), together with his handsome new store in the heart of Decatur, Alabama.

## Ideas Built This Dealer's New Store

By Roy Fuller

Spencer Representative for Alabama

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A novel feature of Simms' store is his new sideline in pets. This section is doing a brisk business in pheasants, dogs, tropical fish, canaries, parrots, turtles, and even baby alligators. The pets are advertised, and people come in just to look around. This has proved to be quite a traffic builder for the store.

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SPENCER CHEMICAL COMPANY  
609 Dwight Building  
Kansas City 5, Missouri

Gentlemen: I am a fertilizer dealer not presently receiving *Today's Fertilizer Dealer* magazine. Please send me a free subscription without obligation.

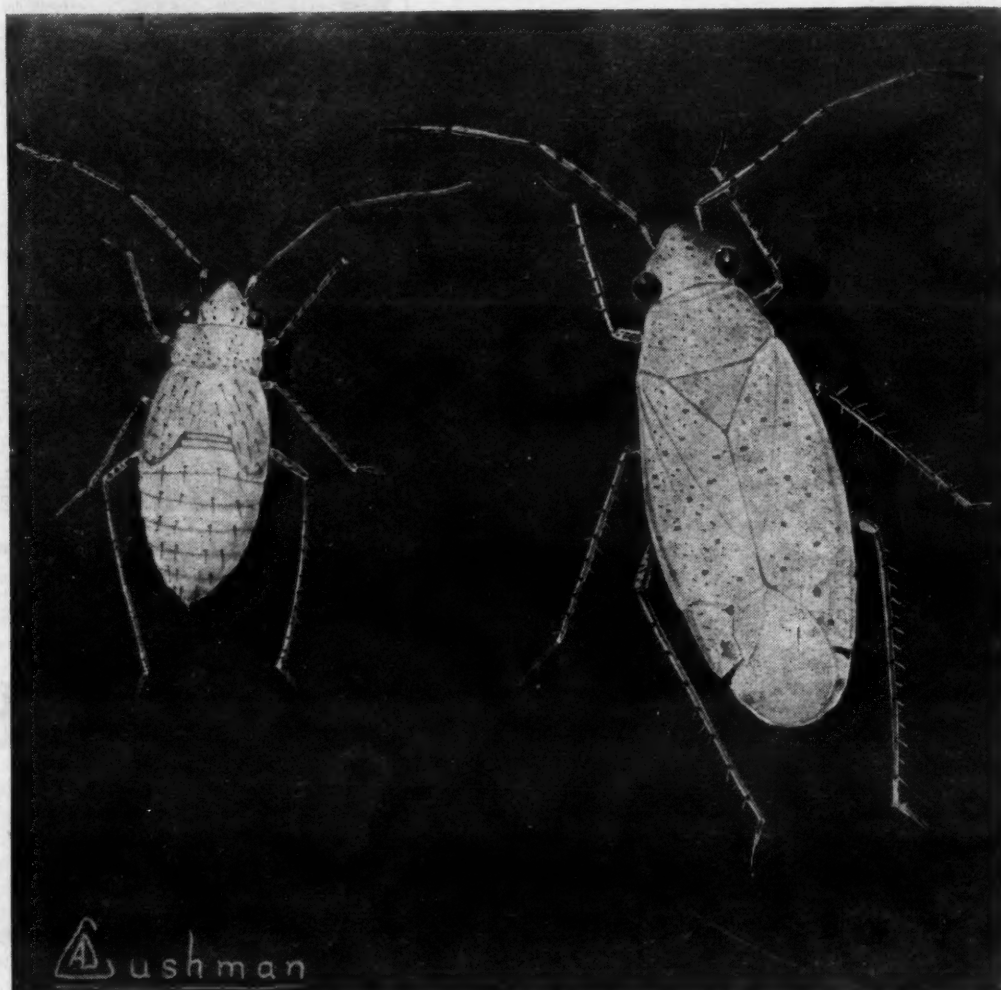
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Firm .....  
Town ..... State .....



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## BUG OF THE WEEK

### Cotton Flea- hopper



#### How to Identify

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#### Habits of the Fleahopper

This pest hibernates in the egg stage on various weeds. In southern Texas, it has appeared on horsemint early in March, migrated to cotton late in April, and deserted the cotton by the end of July to feed for the remainder of the season on other plants, including snap beans and potatoes. Eggs are yellowish white, about  $\frac{1}{30}$ th in. long and a fourth as wide. They are inserted beneath the bark, especially just below the growing tips. They hatch in just a little over a week and the greenish nymphs begin sucking the sap from terminal bud clusters. Nymphs molt

five times and in from 10 to 30 days, are mature bugs.

#### Damage Done by Fleahopper

This bug has caused serious damage to cotton in scattered areas throughout the south, by sucking the sap from the very small squares and other terminal growth, resulting in excessive shedding and an abnormal whip-like growth of the plants.

#### Control of Fleahopper

Ten percent toxaphene dusted at the rate of 10 to 12 lb. an acre has been effective in control of this pest. Likewise, at the same rate per acre, have been the following: 2% chlordane; 1% parathion; 5% DDT and 75% sulfur; or 1% Gamma BHC. Less effective has been sulfur alone, or as a 2:1 mixture with calcium arsenate. Cultural methods include the eradication of weeds and the destruction of cotton stalks during the fall and winter, thus eliminating the environment for next season's population of fleahoppers.

Drawing of fleahoppers furnished Croplife through courtesy of Hercules Powder Co., Wilmington, Del.

Previous "Bug of the Week" features are being reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.

AC or DC to be shockproof and electrical unit. tion begins complete de the coupon cation.

#### No. 500 caster

The Farm designed it broadcaster ed on a trac or jeep. It battery. Ac turer, this



tributes all ing Brome per hour a 30 ft. wide made possi bar mount single wire unit, ready are sealed tion, are fa To secure check No. mail it to

#### No. 62

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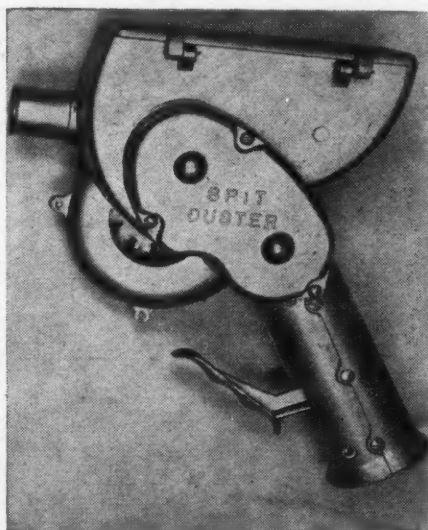
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1947



1954

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Spencer Supplies the Nitrogen

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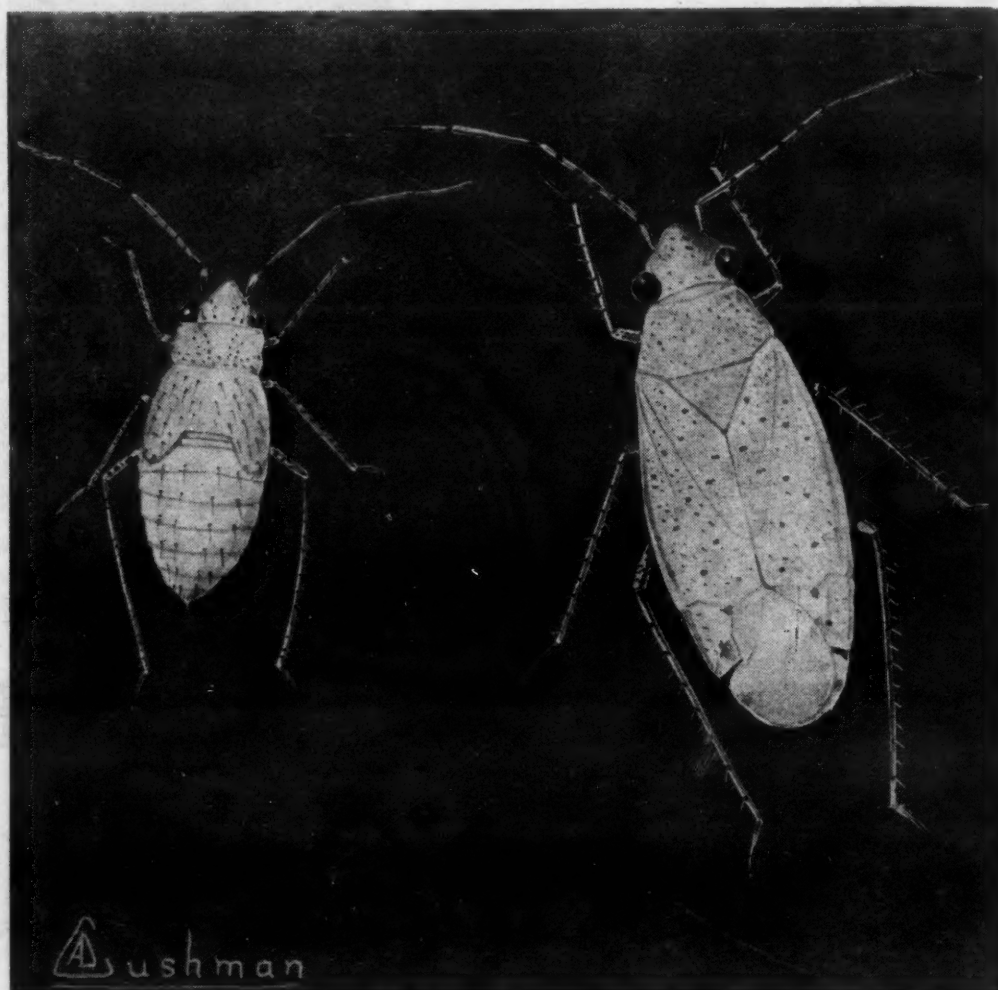
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Ten percent toxaphene dusted at the rate of 10 to 12 lb. an acre has been effective in control of this pest. Likewise, at the same rate per acre, have been the following: 2% chlordane; 1% parathion; 5% DDT and 75% sulfur; or 1% Gamma BHC. Less effective has been sulfur alone, or as a 2:1 mixture with calcium arsenate. Cultural methods include the eradication of weeds and the destruction of cotton stalks during the fall and winter, thus eliminating the environment for next season's population of fleahoppers.

Drawing of fleahoppers furnished Croplife through courtesy of Hercules Powder Co., Wilmington, Del.

Previous "Bug of the Week" features are being reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.

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# Better Selling

Richer Sales Fields for Dealers

## New Building Helps Florida Firm Build Profitable Trade

Pat Tucci & Bros., Homestead, Florida, not only sell about 5,000 tons of fertilizer through distributorship and retail channels annually, but they also pack tomatoes and potatoes and grow a lot of tonnage of these crops. It took a big fire early in 1953 to force the Tucci firm to rebuild on a large scale, and when it did it came with what is said to be the most modern packing house and fertilizer and insecticide store in South Florida.

The new building is about 50 ft. wide and 270 ft. long, affording about 200,000 cu. ft. of usable space. It is constructed of reinforced concrete, steel and concrete blocks. The gypsum roof over the entire packing house is supported on long span steel joists eliminating supporting columns and providing a clear floor area for packing operations. The fertilizer and insecticide store is at the south end of the large building.

The new plant cost approximately \$80,000 and it cost about \$50,000 to equip with packing and other machinery.

Pat Tucci of Mt. Vernon, N.Y., came to Florida in 1915. He settled in Miami in 1918 and in 1928 started farming in Redlands where he became associated with the American Fruit Growers. John Tucci joined his brother in 1937 and they formed Pat Tucci & Bros. Later they bought a plant from W. L. Neely. It was this plant which burned in 1953.

At the present time two other Tucci brothers have joined the firm, Neil Tucci, office manager, and Anthony R. Tucci, in charge of fertilizer and insecticides division.

While being equipped to pack tomatoes and potatoes as well as cabbage, this firm last year grew 500 acres of potatoes, 300 acres of tomatoes and 40 acres of cabbage. When customers see that the firm is growing, too, they have confidence in the fertilizer and insecticide recommendations which are given.

The firm ships hundreds of carloads of tomatoes and potatoes each year to all parts of the country. They are the packing firms for such firms as A. H. Davis & Sons, Florida; A. E. Albert Sons, Martin, Mass.; Oneida Farms, Wisconsin; O. J. Odegard Potato Co., Minnesota, and others. Most of the Tucci potatoes are grown from North Dakota, Minnesota and Wisconsin seed potatoes. The firm is also an affiliate of the Florida Fruit and Vegetable Growers Assn.

The firm handles Swift's fertilizers, and W. C. Brandon, a Swift representative, and a former county agent, works through the Tucci organization to help customers with plant tests, etc. This service is important in building and holding business, report the Tucci brothers.

From 2,200 to 2,500 lb. fertilizer are applied to an acre of potatoes, for the most part, and this yields up to 429 bushels per acre, Anthony Tucci reports. A few growers get higher yields.

The potato crop in this area is planted in November and harvested in February, states Mr. Tucci. During packing operations, the firm employs up to 175 people.

As much as 4,000 lb. fertilizer per acre is applied to some tomato areas. The tomatoes are planted in blocks, Mr. Tucci reports.

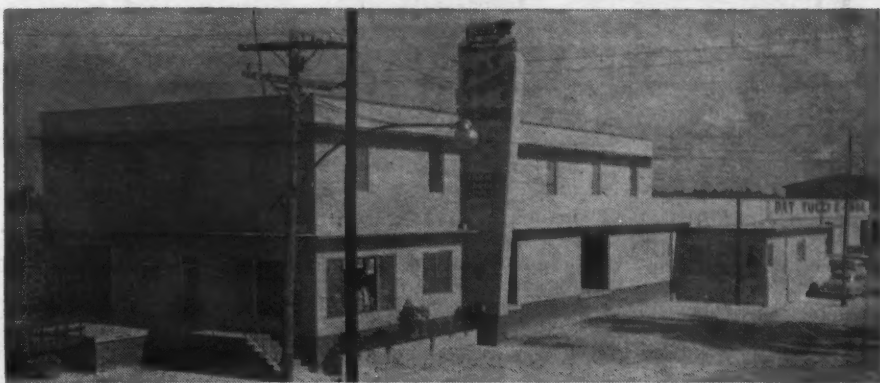
For controlling tomato diseases growers use dithane, parathion, chlorpyrifos, DDT and aldrin. On potatoes dithane, DDT and parathion are employed, all with considerable success.

The spraying of tomato and other crops is tremendously important to get good marketable produce, Mr. Tucci states. For this reason the Tucci insecticide department is very busy seasonally, with growers asking for considerable information.

Spraying of crops with spray rigs is the method used by potato, tomato and cabbage growers, states Mr. Tucci, while airplane dusting is favored by corn and bean growers.

Mr. Tucci declares that the help which the state experiment stations give to growers is very valuable.

(Continued on page 20)



**NEW TUCCI BUILDING**—Shown above is the new building of Pat Tucci & Bros., Homestead, Fla. Erected to replace a plant that burned in 1953, the new structure is 50 ft. wide and 270 ft. long. The fertilizer and insecticide store is in the foreground building area. The plant cost about \$80,000 and cost of equipment and machinery was \$50,000. Interior supporting columns are eliminated to make a clear area inside the plant. The structure is said to be one of the most modern plants in South Florida.



## Pittsburgh Is your Basic Source of Quality-Controlled BRUSH KILLERS

If you want to give your brush killer sales a big boost this year, sell field-tested *Pittsburgh* Brush Killers. For this complete family of safer, low-volatile brush killers is made by a basic producer—*quality-controlled* from coal to packaged product. That's your assurance of product quality that builds good will, repeat orders and increased profits. And attractive packaging, plus a complete advertising program, back you every step of the way.

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## What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on rotational circulation up to date on industry happenings.

The U.S. Commerce Department predicted record sales of chemicals and allied products in 1955, with gains seen in the use of fertilizers and pesticides.

Construction started on an ammonium nitrate plant to be operated by Brea Chemicals, Inc., Los Angeles. . . International Minerals & Chemical Corp. announced that it is expanding its potassium sulfate producing facilities at Carlsbad, N.M. . . Stauffer Chemical Co. completed a new insecticide and fungicide blending plant at Lubbock, Texas.

Procedural regulations for the establishment of safe tolerances for pesticide chemicals used on food crops are to go into effect March 6, the U.S. Department of Health, Education and Welfare announced Feb. 9.

Robert Campbell, acting president of the new St. Paul Ammonia Products Co., announced that the firm would erect a \$15 million anhydrous ammonia plant near St. Paul.

Fertilizer mixers, replying to a Croplife survey on the 1955 business outlook, said a balance of supply and demand appears likely this year. The fall fertilization program was reported to be making headway in some areas.

The 1955 corn allotment was set at 49,842,697 acres, an increase of 8% over that of last year . . . Organization of Calumet Nitrogen Products Co., a new firm that will build an ammonia plant at Hammond, Ind., was announced by Standard Oil Co. (Indiana) and Sinclair Refining Co.

Sales of East German potash below domestic prices threaten to produce a loss of at least \$2.5 million to the U.S. potash industry, it was stated at a U.S. Tariff Commission hearing on the imports. . . The U.S. Department of Agriculture reported that a serious corn borer infestation is likely this year in the Midwest if weather conditions are favorable for the insect's development.

International Minerals & Chemical Corp., Chicago, announced plans for a more than \$1 million expansion program for its potash plant at Carlsbad, N.M.

Regulations governing certification by the U.S. Department of Agriculture of the usefulness of pesticide chemicals as authorized under the Miller Bill were issued by USDA.

The carry-over of 26 major pesticidal chemicals in the hands of manufacturers is down about 10%, according to a USDA report issued Jan. 13. . . A huge spraying project to control spruce budworm in eastern Canada in 1955 was announced. Some 2 million acres of timberland are due for treatment. A similar project in the western states of the U.S. was foreseen for 1955 with some 900,000 acres slated for spraying by plane against spruce budworm.

Oregon's spray and dust applicators met at Corvallis and heard talks warning against carelessness in disposing of empty containers and in handling chemicals. . . Richard P. Porter, formerly of Ethyl Corp., was named vice president of Larvacide Products, Inc., New York.

Numerous state meetings were held. Cotton States Branch of Entomological Society of America met at Tampa, Fla. and elected H. C. Young, USDA as chairman. . . The Southern Weed Conference met Jan. 17-19 at St. Petersburg, Fla. with 300 in attendance. G. C. Klingman, N. Carolina State College, Raleigh, was named president of the Conference.

Colorado Fertilizer Conference was held on the campus of Colorado A & M, Ft. Collins. That fertilizer can largely compensate for lack of moisture in dry years, was emphasized by speakers. . . Mississippi Insect Conference at State College was held early in January featured well-known speakers;

Croplife's issue of Jan. 17 carried stories about new plants in the east and midwest. Northern Chemical Industries completed plans for a \$9 million anhydrous ammonia plant at Searsport, Maine; and U.S. Industrial Chemicals Co. announced plans to dedicate its new \$7 million plant at Tuscola, Ill. on Jan. 21.

More than 500 attended the Northeastern Weed Control Conference in New York. John Van Geluwe, GLF Soil-Building Service, Ithaca, N.Y., was named president of the group for 1955. . . The pesticide trade may benefit from new emphasis on grain sanitation, John Clipperly, Croplife's Washington reporter said. Use of the provisions of the Miller Bill will help in this regard, since residual tolerances may now be set.

Grace Chemical Co. formally dedicated its \$20 million ammonia-urea plant at Memphis, Tenn. Jan. 6. Plant had been on stream since middle of December. . . Standard Oil Co. of Ohio named H. H. Tucker and H. J. Coleman to new posts in its new Lima, Ohio, project. The firm is building a new \$17,000,000 petrochemical plant for production of anhydrous ammonia, nitrate solutions, urea and nitric acid.

Future weed control progress will be made more difficult as problems become more demanding for specificity, the Northeastern Weed Control Conference in New York was told. . . Mid-South Chemical Co., Memphis, announced plans for a \$1 million anhydrous ammonia terminal in the Memphis harbor.

Progress on several fronts was reported in the Jan. 10 issue of Croplife in use of antibiotics for control of fire blight in orchards.

In its preliminary report on fertilizer consumption in the U.S. for the fiscal year ending June 30, 1954, the U.S. Department of Agriculture reported that total tonnage was down 2.3% from that used in 1952-53, but consumption of primary plant nutrients showed a gain of 3.6%. Total consumption of fertilizer was listed as being 22,875,000 tons which was 538,000 less than that reported in the previous fertilizer year.

Grace Chemical Co. began production of anhydrous ammonia at its Memphis plant in December and shipped its first tank car of the material to Swift & Co., Chicago.



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kernels

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Covers in detail: soil chemicals . . . important soil elements such as nitrogen, phosphorus, calcium . . . yield prospects of crop plants . . . moisture control . . . soil management . . . mechanical operations . . . soil conservation . . . organic matter maintenance.

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## FARM SERVICE DATA

### Extension Station Reports

Despite the cost-price squeeze faced by farmers, this is no time to economize on fertilizer use, J. V. Pace, Mississippi Agricultural Experiment Station economist, states. He says that fertilizer ranks near the top of best buys in farm production expenses.

Pecans require a fertile soil to produce a good crop of nuts every year, John A. Cox, Louisiana State University extension horticulturist, points out.

He advises farmers to apply fertilizer to the soil during late January, February or March. The amount and analysis are governed to a great extent by soil type and condition of the soil. Generally, an 8-8-8, 6-8-8, or 5-10-5 analysis is recommended, he says. This should be applied at the rate of 25 to 30 lb. per square foot cross-sectional area of the tree trunk, or 2 lb. for each year age of the tree.

How some Daviess County, Ky., farmers are preparing to grow better corn is reported by John E. McClure, county agent.

Herman Baskett applied 500 lb. 12-12-12 fertilizer an acre and chopped cornstalks on 100 acres. He is planning to plant early, harvest early and follow with a cover crop.

Swain Miles applied 200 lb. cyanamid an acre on plowed land to be disked and planted early. Bartlett & D'Bryan shredded stalks and applied 1,000 lb. an acre of 4-16-16 fertilizer. They expect to add 160 lb. an acre of nitrogen in anhydrous ammonia.

Streptomycin sulfate gives excellent control of wildfire in tobacco plant beds, according to S. B. Fenne, plant pathologist at Virginia Polytechnic Institute.

In test beds the plants were heavily infected with wildfire before treatment, three weekly applications of streptomycin sulfate resulted in a striking recovery of the plants. In the untreated portions of the same beds wildfire continued to develop. Streptomycin does not injure tobacco plants if used at the recommended rate.

The first application of streptomycin should be made at about the four-leaf stage, or when wildfire is first observed. Two or more additional applications should be made at 7-day intervals. Continue spraying as long as wildfire is active in the plant bed. If it rains within 24 hours after application of the chemical, repeat the treatment as soon as possible.

If the right chemical fungicide is used at the proper time, the cost of preventing plant diseases in crops usually is not prohibitive, says Dr. W. B. Tisdale, plant pathologist with the University of Florida Agricultural Experiment Stations.

Time of application of a fungicide varies according to the plant, the nature of the disease and weather conditions, the plant pathologist explains. With many crops, the time to make the first application is when first signs of the disease show up, but in some areas where certain diseases show up every year, it has been found necessary to begin applications soon after the plants emerge and continue

applications on regular schedule to protect the crop.

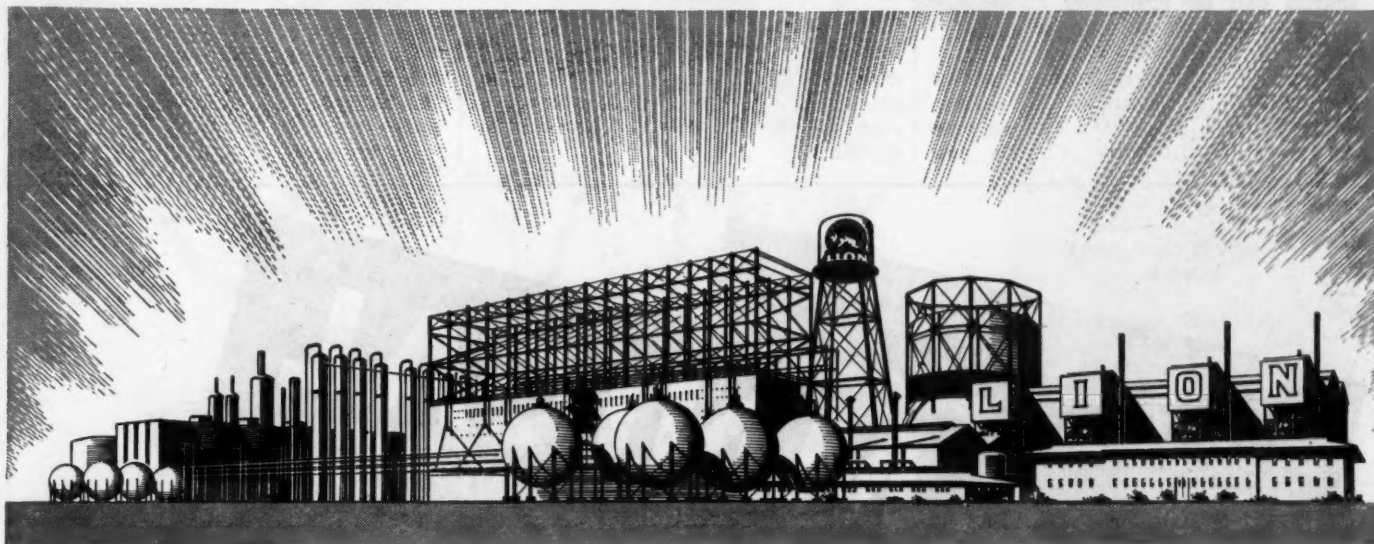
Downy mildew of cabbage and blue mold of tobacco are diseases which require applications of fungicides shortly after the plants emerge until they are ready for transplanting for satisfactory control.

Late winter is a good time to kill wild garlic (or wild onions) with

2,4-D sprays, says John M. Amos, weed specialist at Virginia Polytechnic Institute. Regardless of where the weed is growing, any spray control program should be undertaken before new bulbets begin to form in the soil. Bulbets start forming in late March or early April. The temperature when spraying should be 60° F. or above for best results. In most cases where the garlic is growing in lawns or grass pastures, 2,4-D ester at 2 to 2½ lb. acid equivalent per acre will give good results, Mr. Amos says. Lower dosages and certain precautions must be taken when 2,4-D is applied to clover-grass pastures.

External and internal parasites claim one farm animal out of each 20 and cost livestock producers about one billion dollars annually. Much of

this loss could be stopped if producers would follow recommended parasite control practices, according to Texas A&M College.



## How LION Helps YOU Sell NITROGEN FERTILIZERS

- ✓ Two Giant Chemical Plants Assure the Supply
- ✓ Advertising Helps Create the Demand

As a retailer, you'll find it to your advantage to sell Lion nitrogen fertilizers, because Lion's manufacturing capacity and storage facilities assure a ready supply of top-quality materials, and Lion's consistent advertising pre-sells the Lion brand.

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# Better Selling

Richer Sales Fields for Dealers



## FLORIDA DEALER

(Continued from page 17)

able. In the South Florida area, the state has special meetings for tomato growers, others for potato growers, and still others for corn and bean growers, citrus growers, etc.

At such meetings growing, fertilizing, management and disease control are among the topics discussed at length.

Growers who want to keep abreast of developments in their fields can do so by attending the meetings. Station specialists as well as many marketing experts continually point out how research has helped the Florida fruit and vegetable grower to produce better marketable produce. Research can be employed constantly to seek solutions to marketing problems.

The Tucci firm sells most of its fertilizers in October, November, January and February, reports Anthony Tucci. While Florida soil

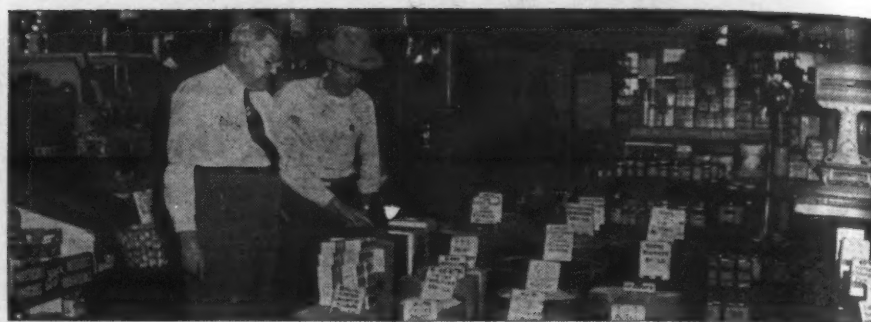
for the most part is organically inferior to that of many other states, plenty of sunshine and water, plus fertilization and disease and insect control have made it highly productive annually. In this picture, the Tucci brothers believe, the well informed fertilizer dealer has a tremendous part to play.

## Phosphorus Helps Soil Withstand Drouth

LUBBOCK, TEXAS — Recent experiments indicate that a soil well supplied with phosphorus can withstand drouth better than soil deficient in this element. Under drouthy conditions, the average yield of hay on phosphorus supplemented soils made three tons more per acre. The addition of lime alone increased the production nearly a ton.

## SOIL CONSERVATION

SAN ANTONIO, TEXAS — Soil conservation districts have spread progressively over Texas until only eight of the 254 counties are not in districts.



**DISPLAYS HELP SELL**—C. H. Robertson, co-owner of the Empire Seed Co., Temple, Texas, is shown above at the left talking to a customer about the merits of fertilizer on black-land farms. The open bag fertilizer displays give a boost to the sales effort.

## Texas Retailer Builds Small Trial Orders Into Big Business

Empire Seed Co., Temple, Texas (with a branch in Waco), is selling a total of around 55 carloads of fertilizer annually in an area where traditionally it was assumed that fertilizer was not a sound investment. It is an area of heavy black waxy

land, and old-timers always argued that the soil would not successfully take fertilizer.

The company has been able to build a profitable fertilizer volume by working closely with county agents and farmer groups, to show by example that fertilizer is a good investment in this type of soil, according to C. H. Robertson, co-owner of the company.

The company induced a few farmers to try fertilizer in a small way, largely by extensive display of fertilizers on the sales floor. After a farmer was talked into trying fertilizer on a small plot of his farm—possibly only on a garden or vegetable acreage—he saw its value and started using more. When the company thus induced a customer to start using fertilizer in sizable quantity, he became a reference for a store salesman in talking to other farmers.

On the sales floor the company maintains an extensive display of all fertilizers handled. Each is shown in an opened, rolled-down bag or some other container. All the units are lined up in straight rows, and each carries a conspicuous tag, giving the name of the fertilizer, its content and price. Insecticides and disinfectants are likewise displayed alongside the fertilizers, with similar identifying tags.

"Since we have a pretty heavy store traffic," says Mr. Robertson, "these displays are particularly helpful in inducing farmer customers to try fertilizers. We are much more interested in inducing a farmer to try a fertilizer at the outset than we are in the quantity of his order. We have found by experience that once we start a customer using fertilizer he becomes a regular and larger buyer."

By this method of selling, the company has induced several customers to try fertilizers on pasture land, and invariably when a man buys a small order he comes back later for more. More important still, his neighbors see the result of fertilized pasture and come in.

Larger orders for fertilizer come mainly through working with local ASC officials and farmers utilizing ASC services; but many of these orders, Mr. Robertson points out, are the result of inducing farmers, a year or more ago, to try fertilizers in a small way. The initial sales come mainly through the floor displays and suggestions to customers who came in to buy seeds or other merchandise.

"We see a bright future for fertilizer business in this blackland area," Mr. Robertson says, "because the prejudice against fertilizer on this type of soil gradually is being broken down. We have induced farmers to prove to themselves that fertilizers are a sound investment. They in turn are helping us indirectly to induce still others to use fertilizer. The potential fertilizer business here is tremendous."

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# AMNICAL

(AMMONIUM NITRATE LESTONE)

## 20.5% Nitrogen Double Duty Plant Food

*Made in Italy*

AMNICAL contains 20.5% nitrogen which will result in higher-than-ever yields of protein rich crops of all kinds.

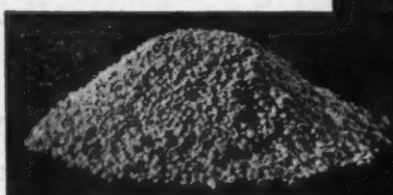
AMNICAL contains about 40% Calcium Carbonate with Magnesium Carbonate.

AMNICAL'S nitrogen is in approximately one-half nitrate form making it quick-acting and immediately available to growing crops.

AMNICAL'S nitrogen is in approximately one-half ammonia form—resistant to leaching, slow but steady-acting, gradually feeding the crop throughout the entire growing season.

AMNICAL'S white color is your guarantee of the purity of the raw materials employed in its production.

Amnical is manufactured in a solid white pellet form to assure easy handling, free flowing, and resistance to moisture.



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## BLACK LEAF FIRM

(Continued from page 1)

sprays, dusts and herbicides distributed throughout the U.S. and in many other countries, Mr. Howell and Mr. Sargent said.

Present plans call for continuing headquarters in Richmond, home of Virginia-Carolina Chemical Corp.'s Black Leaf Products Division for the past several years.

The new firm takes over plants established at Richmond; Louisville, Kentucky; Montgomery, Ala., and Waco, Texas.

Production, sales and office personnel presently engaged in Black Leaf operations total approximately 300 people. It is expected most of these will be offered the opportunity of employment with the new organization.

Loren P. Scoville and Dr. Bruce G. Gleissner, general manager and assistant general manager respectively of Diamond's Chlorinated Products Division, have been named to the posts of president and vice president of Diamond Black Leaf Co. They will also continue in their present positions with Diamond.

Other officers of the new organization are Donald S. Carmichael, secretary; Arthur W. Crossley, treasurer, and William A. Chrichley, controller, all of whom continue to serve Diamond Alkali Co. in these same positions at its national headquarters in Cleveland.

With the formation of this new concern, Diamond Alkali, a major manufacturer of the newer synthetic organic insecticides and weed killers, will now market Diamond materials in finished, ready-to-use form, Mr. Sargent said. He also explained that Diamond will simultaneously continue to make and sell its chlorinated intermediates to other pesticide producers for use in manufacturing their own end-products.

The Diamond Black Leaf Co., Mr. Howell said, will thus continue chemical operations dating back to 1887, when the Kentucky Tobacco Products Corp. was formed and subsequently became Tobacco By-Products and Chemical Corp., and most recently the Black Leaf Products Division of Virginia-Carolina Chemical Corp. It stems from one of the earliest pest control chemicals, nicotine, developed in America.

John W. Kennady, branch office sales manager for Diamond at Houston for the past two and a half years, has been appointed general manager of Diamond Black Leaf Co. A veteran of many years' experience in the production and sale of agricultural chemicals, he will make his headquarters in Richmond.

A native of Pennsylvania, Mr. Kennady was manager from 1950 to 1952 of Diamond's Greens Bayou Plant at Houston prior to its acquisition from the former Kolker Chemical Co. His earlier experience includes three and a half years in a sales capacity with another chemical company, and eight years in a supervisory post with the U.S. Department of Agriculture at Philadelphia.

A graduate of Pennsylvania State University, Mr. Kennady has also studied at the University of Michigan and the University of Pennsylvania.

### California Sales

SACRAMENTO — Commercial fertilizer sales in California during the last three months of 1954 totaled 176,395 tons, according to preliminary figures released by Allen B. Lemmon, chief of the state's Bureau of Chemistry. The total includes 34,224 tons of dry mixed fertilizer, 29,093 tons of ammonium sulfate and 27,151 tons of ammonia solution (20-0-0).

## MR. DEALER

Your Customers Need

# COTTON POISONS



**You Can Sell Them Thompson-Hayward Products With Confidence, Because...**

You can be sure that every cotton poison, bearing the Thompson-Hayward label, is field-tested...of proven effectiveness...and is economical to buy and easy to use.

Thompson-Hayward formulates a full line of cotton poisons and control agents.

### COTTON DUSTS

- 20-0-20% Toxaphene
- 20-40-20% Toxaphene, 40% Sulphur
- 3-5-40-3% Gamma BHC, 5% DDT, 40% Sulphur
- (Other formulations available)

### COTTON SPRAYS

- 3-5-0-0.8 Lb. Gamma BHC, 1.34 lbs. DDT per gallon
- 4-2-0-4 Lbs. Toxaphene, 2 lbs. DDT per gallon.

(Products containing Sulphur recommended for control of red spider)

Place your order of cotton poisons now! Be ready to meet the demand.



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## WORLD REPORT

### Industry News from Everywhere

By **GEORGE E. SWARBRECK**  
Croplife Canadian and Overseas Editor

Britain's Royal Sanitary Institute calculates that more than 200 varieties of insects and mites come into the country every year in produce imported from abroad. The need to inform the public of the dangers present as a result of these circumstances has led to the presentation of an exhibition "You versus Pests" at the institute's headquarters.

The exhibits show how chemicals and other aids are used to beat infestation in ships, warehouses, flour mills, factories and stores. Because

there are also numerous indigenous insects in Britain, the presentation includes examples of how agricultural chemicals are used to fight insects on the farms.

It has been estimated that the loss on world production from insect attack amounts to 5%, and rises to 10% when damage by rodents is added.

This somber story is told in photographs and models, charts and tables,

and by displays of live insects, many of which can be examined under a microscope. The other side of the picture is shown by a display of equipment and materials that are brought into action against insects and mites.

### Indian Insects

The war against insect infestation is also commanding attention in India. The Canadian government is to provide funds for the establishment of a biological control laboratory at Bangalore as part of its contribution to the Colombo plan for Commonwealth betterment.

The laboratory will collect beneficial insects and other organisms already present in the country with a view to utilizing them for the destruction of crop pests. Imported organisms and insects will also be tested.

The Canadian authorities have agreed to provide an expert who will be replaced by Indian scientists in

due course. The laboratory will also benefit other countries which may require parasites and predators available in India for reducing their own pest populations.

### Cyanamid Chemists

Three staff members of the Niagara Falls, Ont., plant of North American Cyanamid have left for South Africa where a subsidiary of the company is to start operations.

Heading the party is Walter C. McBurney, technical director of the company and former manager of the Niagara plant. Accompanying him are Gordon Frost and Arthur Smith, two Niagara technicians. A fourth member of the firm, Leo O'Banion, is already in South Africa.

Like the Canadian operation, the South African plant will be operated as a subsidiary of the U.S. parent organization, American Cyanamid Company.

### Danish Fertilizers

Though Denmark has a well developed fertilizer industry, it is still necessary to import a large part of the requirement. Currently, Germany takes most of the market, but trade reports indicate that there is a growing demand for U.S. supplies, particularly in items not readily obtained elsewhere.

Approximately 34% of the import requirement came from Germany, both east and west zones, 9% from the U.K., 5% from France and 3% from the U.S.

### French Deal

Under the terms of a recently signed trade agreement, covering the three years 1955-57, France will export to Rumania 20,000 tons superphosphates and 15,000 tons superphosphates annually.

## Co-op to Be Sole Agent for St. Paul Ammonia Company

ST. PAUL—The Central Farmers Fertilizer Co., Chicago, is to be the sole distributing agency for the plant of the recently formed St. Paul Ammonia Products, Inc., which is to be built at Pine Bend, near St. Paul. (See page 1 of the Feb. 14 issue of Croplife.)

Dan A. Williams, St. Paul, general manager of the Farm Bureau Service Co., has been named president of the new company with Robert Campbell, the Canadian industrialist, as chairman of the board. The vice president and general manager is C. Bruce Brown, Montreal. Other directors appointed are C. E. Lightfoot of New York and Frank Calvin, chief of the fertilizer department of the Farmers' Union Central Exchange, St. Paul.

Temporary offices have been opened in St. Paul and operating personnel will be assembled in the spring, Mr. Williams states.

Central Farmers' Fertilizer Co., is an agricultural cooperative corporation supplying fertilizer products to 15 state and regional agricultural cooperatives in 12 Midwest states. Mr. Williams is chairman of the board. It is understood that Central Farmers has taken up a considerable portion of the outstanding common stock in the new company.

The fertilizer company has good sources of supply for potash and phosphate but has not been well covered for its nitrogen requirements. The new plant, when it is in production in about 14 months, will relieve that situation, Mr. Williams states.

Although the primary purpose of Central Farmers is to supply the needs of member organizations, it is contemplated that some of the production will be moved into industry through established trade channels, officials state.

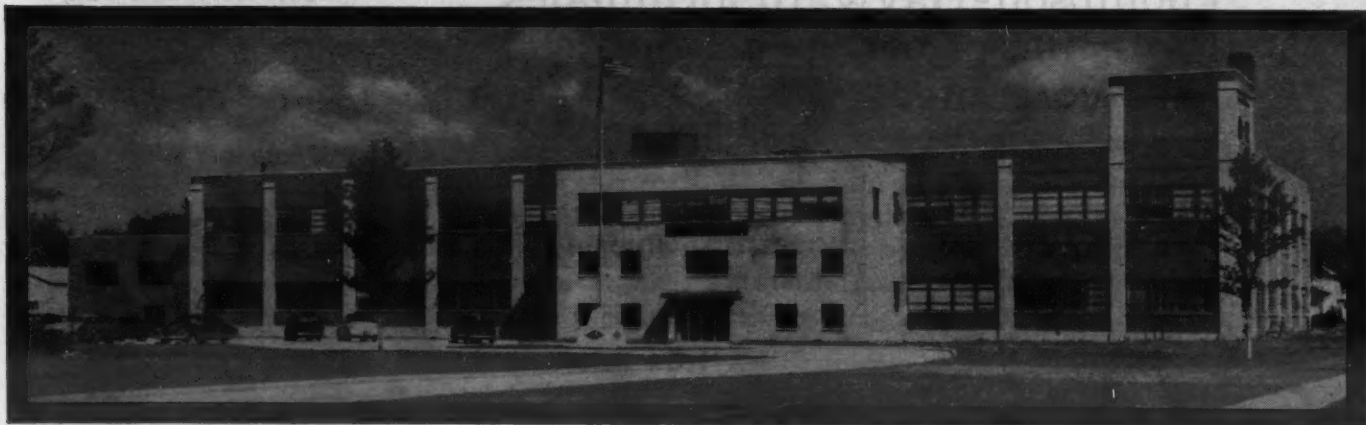


## Diamond Chemicals

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- K-101 (Ovex) Acaricide
- Hexachlorobenzene Seed Disinfectant

Wettable powders; dust concentrates; and emulsifiable and oil solutions of our technical grade chemicals.





## New Quebec Company to Build \$7.5 Million Ammonia Plant

MONTREAL — Plans have been finalized for the construction of a \$7.5 million ammonia plant by the Quebec Ammonia Co., Ltd., a newly formed company. A site has been selected at Contrecoeur, near Sorel, Que., and work will begin in the spring with completion expected by the middle of 1956.

Associated with the development is Robert Campbell, acting president of St. Paul Ammonia Products Co., whose plans for the erection of an anhydrous ammonia plant at Pine Bend, near St. Paul, were recently announced. (Crolife Feb. 14, page 1.)

The Lummus Co. of Canada, Ltd., has been awarded the contract for the design and construction of the Quebec anhydrous ammonia plant with a capacity of 125 tons a day, together with a nitric acid and ammonium nitrate plant to be used for converting one half the output

to nitrogen solutions for agricultural use.

The plant will be a completely integrated operation, company officials state. It will consist of processing units, storage tanks, boiler plant, cooling towers and shipping facilities.

The company is to establish an office in Montreal but the head office will be located in Contrecoeur when the plant has been completed. Directors are to be named shortly.

### Charles Loring in New Stauffer Post

NEW YORK—Charles Loring has been appointed eastern district sales manager of the industrial chemicals division of Stauffer Chemical Co., it has been announced by Hans Stauffer, president.

In his new capacity, Mr. Loring will be in charge of sales of industrial chemicals in the New England, Central Atlantic and Southeastern states. During his ten years with Stauffer, Mr. Loring has been in domestic and export sales, and has been a product sales manager of the Industrial Chemicals Division.

### Pacific Coast Borax Names F. M. Dosch

LOS ANGELES—The Pacific Coast Borax Co.'s Agricultural Sales Division has announced the appointment of F. M. Dosch as the manager of its district office in Kansas City. Mr. Dosch, who holds a master of science degree in agronomy, has been associated with the Pacific Coast Borax Co. since 1950 and has been stationed at field offices in Sioux City, Amarillo and Kansas City.

### Kenneth R. Brown Named for CCDA Award

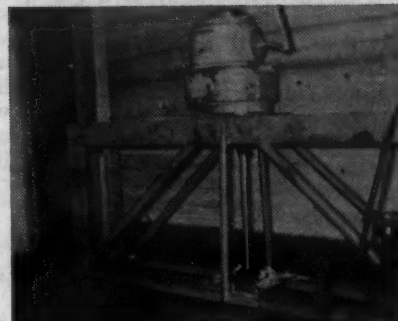
NEW YORK — Kenneth R. Brown, vice president of Atlas Powder Co., Wilmington, Del., has been awarded the 1955 honor award of the Commercial Chemical Development Assn., it was announced recently by Nolan B. Sommer, president of the CCDA. The award will be presented to Mr. Brown March 17 at an association dinner in his honor at the Hotel Statler, New York.

The award, which is presented annually for outstanding achievement in the field of commercial chemical development, goes to Mr. Brown for his pioneering work in the development and marketing of sorbitol and related products.

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## MIDWEST MEETING

(Continued from page 1)

"Placement of fertilizer for corn is not as important as is sometimes considered, provided the fertilizer is not in direct contact with the seed," he said.

### Use Fertilizer for Overcoming Surplus

That the use of commercial fertilizer is the most effective tool "within the reach of all farmers" to reduce crop surpluses without a corresponding shrinkage of income, was emphasized by Dr. Russell Coleman, president of the National Fertilizer Association, Washington, D.C.

Dr. Coleman reminded that the chief problems of surplus commodities are in cotton, corn and wheat, then brought out a number of economic facts concerning these crops.

The average per-acre production of corn in the midwest is 43 bu., he said, but this could be increased to 75 bu. through following recommended practices including proper usage of fertilizers. If this were done, the total production of corn in the midwest could be reduced from the present figure of 2½ billion bu. to 2 billion, without a loss in farm profits.

These 2 billion bushels, he pointed out, could be grown on less than half the acreage presently devoted to corn. "Accomplishment of this objective would require plant food in much larger quantities," he said. "Instead of using 19 lb. of plant food an acre as is currently done, it would be necessary to use 259 lb. Therefore, even though the acreage would be less than 50% of that presently used for corn, almost seven times as much plant food would be required."

The NFA head then explained how a reduction of 20% in corn acreage could be accomplished without reducing net farm income. "Data show that if all farmers in the midwest took advantage of experiment station findings, the cost of producing a bushel of corn could be reduced from \$1 a bushel, to 80¢," he said. Assuming the value of corn at \$1.50 a bushel, this would make the net profit per bushel, 70¢ instead of 50¢. Thus, even on fewer acres, a greater net income could be realized.

A similar story on wheat was described by Dr. Coleman. Here, he indicated that the total production of wheat in the midwest could be reduced by 20% from current production of 557 million to 445 million bushels without reducing net income to the wheat farmer.

As in the case of corn, this could be accomplished if the recommended production practices were followed on wheat, also. By following experiment station recommendations, wheat yields could be increased from an average of 18 bu. an acre to 30. By increasing the yields this much, midwestern farmers could reduce their acreage of wheat over 50% without loss of income.

Such a project would greatly increase the use of fertilizers. Instead of using 26 lb. an acre as is currently used, recommended practices would call for 86 lb. an acre. This means that on the reduced acreage at least 50% more plant food would be required to obtain the desired efficiency in midwestern wheat production.

Although his remarks were directed particularly to problems relating to the midwestern states, Dr. Coleman said that results on wheat fertilization would be even more astounding if applied to every wheat farm in America.

"Average net profit per bushel could be approximately tripled, from around 15¢ to 45¢," he said. "This means that the nation's wheat production could be cut over 50% without sacrificing one dollar in net profits at present prices. In fact, the nation's wheat farmers could realize more net return from 500 million bushels of wheat than they would realize from a billion under current practices. Under these circumstances, present wheat surpluses would be quickly converted into a shortage."

Dr. Coleman said further that applying the same principle to corn, it is estimated that the same net profit could be derived from a 2-billion bushel crop as would be realized from 3 billion bushels produced under presently-used practices.

E. B. Norum, North Dakota Agricultural College agronomist, told the

group that the use of nitrogen in rain-deficient areas could reduce time that wheat land lies fallow. "Wheat yields vary almost directly with the amount of moisture available during the growing season," he said. "Growing a crop one year and leaving the field fallow the next is popular in the western part of this area, while using fallow one year in three is common practice in the eastern part."

"The chief benefit derived from fallow lies in conserving moisture, but this practice also stockpiles some nitrogen in the soil. Actually, therefore," he said, "the use of nitrogen fertilizer can substitute in part for fallow at least to the extent of providing increased nitrogen for the use of the crop the following year."

With this as a basis, Mr. Norum estimated that the use of nitrogen in wheat production in this area could reduce the use of fallow from every other year to one year in three; and where it is now used one year in three, to one year in four.

Nitrogen alone has not been particularly beneficial on non-fallow land, he said, nor does phosphate alone give very great response. "But when nitrogen and phosphate are combined in the fertilizers for wheat, yields have been effectively increased on non-fallow land," he reported.

The statement that forage production can be doubled and the protein content increased more than 2½ times on poor upland pasture when lime and fertilizer are added, was made by John Falloon, University of Missouri soils specialist. He reported that fertilized pasture yielded 5,960 lb. of forage an acre, compared with only 2,516 pounds on untreated soil in a 1954 demonstration in Boone County, Missouri. This was an increase of 1½ tons an acre.

The protein yield was 540 lb. an acre on fertilized pasture and 196.5 lb. on the untreated field. The protein content of each was 9.1 and 7.8%, respectively.

Mr. Falloon reported that Missouri farmers are now using about 12 times more fertilizer to boost crop yields than they did in 1942. The nutrient content of mixed fertilizer in Missouri has also increased significantly: from 21.1% in 1942 to 31.4% at present.

Corn yields can be tremendously increased when fertilizer is teamed with other improved soil and crop

management practices, E. R. Duncan, Iowa State College agronomist reported.

"Fertilizer can't do this job alone," he said, then listed the following crop and soil management practices as essentially important in building high yields: 1—Suiting the corn plant population to the soil's fertility level; 2—using suitable varieties of corn; 3—timeliness of field operations; 4—weed and insect control; 5—erosion control and drainage; 6—suitable crop rotations and the return of crop residues to the soil.

"Research and experience have shown us that suitable fertilization can increase yields from 20 bu. an acre to 70 or 80 bu. an acre when weather conditions are favorable and subsoil moisture is satisfactory," he said, but added that yield levels may be considerably limited where there is neither rainfall nor subsoil moisture, regardless of fertilizer applications.

### "Carry-over" Value of Fertilizer Emphasized

Speaking on "Efficient Corn Production in the Eastern Corn Belt," H. J. Mederski, Ohio State University agronomist declared that the "carry-over" power of fertilizer helps to boost yields of all crops in the rotation when plant food is added to any one of them.

He reported cases where corn yields were increased 15 bu. an acre, oats eight, wheat 10 and hay, 760 lb. an acre, when 500 lb. of 4-16-4 fertilizer was broadcast for corn in the rotation.

Other examples of the far-reaching effect of fertilization were cited in cases where yields of corn were boosted 12 bu., oats 7 bu., wheat 6 bu. and hay, 1,800 lb. an acre when the same amount of fertilizer (500 lb. 4-16-4) was added to a new legume-grass seeding after wheat. Applying the fertilizer on wheat increased corn yields by 7 bu., oats six bu., wheat 19 bu. and hay by 1,300 lb. an acre, he said.

Reports from agronomists from other colleges and universities located in the 13-state area encompassed by the Middle West Soil Improvement Committee's activities, added to the overwhelming evidence

## SUGGESTED MINIMUM FERTILIZER GRADE NEEDS OF THE MIDDLE WEST

RATIO	ILL	IND.	IOWA	KAN.	KY.	MICH.	MINN.	MO.	NEBR.	N. DAK.	OHIO	S. DAK.	WISC.
0:1:3	0-10-30	0-10-30	0-10-30			0-9-27	0-9-27	0-10-30			0-10-30		0-10-30
0:1:2	0-10-20	0-10-20				0-10-20	0-10-20						
0:1:1	0-20-20	0-20-20	0-20-20	0-20-20	0-12-12	0-20-20	0-20-20	0-20-20			0-14-14		0-20-20
0:2:1	0-20-10	0-20-10	0-20-10			0-20-10	0-20-10				0-20-10	0-20-10	0-20-10
1:6:3						3-18-9		4-24-12			4-24-12		4-24-12
1:4:4	4-16-16	4-16-16	4-16-16			3-12-12	3-12-12	4-16-16	4-16-16		3-12-12		4-16-16
1:4:2	5-20-10	4-16-8	5-20-10			4-16-8	5-20-10				5-20-10	4-16-8	
1:4:1						5-20-5							
1:3:9	3-9-27	3-9-27				3-9-27		3-9-27					3-9-27
1:3:6		3-9-18	3-9-18			3-9-18	3-9-18				3-9-18		3-9-18
1:3:2						4-12-8							
1:3:1				8-24-8				8-24-8	8-24-8				
1:2:3					5-10-15						5-10-15		
1:2:2		8-16-16	8-16-16		5-10-10	6-12-12	8-16-16	6-12-12			6-12-12		
1:2:1			10-20-10	10-20-10		10-20-10	10-20-10	12-24-12	10-20-10	10-20-10		10-20-10	
1:1:3					6-6-18								6-6-18
1:1:1	10-10-10	10-10-10	10-10-10	10-10-10	8-8-8	10-10-10	10-10-10	10-10-10		10-10-10	10-10-10		10-10-10
1:4:0	8-32-0	8-32-0	6-24-0	8-32-0			8-32-0		8-32-0	8-32-0		8-32-0	
1:3:0			10-30-0	10-30-0			10-30-0	13-39-0	13-39-0	10-30-0		10-30-0	
1:2:0	10-20-0		10-20-0	10-20-0			10-20-0	10-20-0	10-20-0	10-20-0		10-20-0	
1:1:0	15-15-0		15-15-0	15-15-0				15-15-0	15-15-0		15-15-0		15-15-0
2:1:1		14-7-7				14-7-7					14-7-7		
2:2:1										12-12-6			

**FERTILIZER RECOMMENDATIONS**—The above table showing suggested minimum fertilizer grades for the midwestern states, was released at the February 18 agronomist-fertilizer industry meeting in Chicago, sponsored by the Middle West Soil Improvement Committee. These suggested grades were presented to the fertilizer industry by Dr. Paul M. Burson, University of Minnesota, representing the college agronomists. The suggestions apply to the

fertilizer year beginning July 1, 1955. It was noted that straight materials supplying nitrogen, phosphate and potash are also needed. Minor and secondary elements as materials and in mixed fertilizers are also required in localized areas, the agronomists noted. Also encouraged was the production of higher grades of the suggested ratios. A regional minimum concentration of 27 units was suggested, except in Kentucky, which suggests 24 units.



at better fertilization means great-  
yields and profits.

S. A. Barber, Purdue University  
agronomist, declared that develop-  
ment of higher yielding wheat va-  
rieties by state agricultural ex-  
periment stations, increased rates  
of fertilization and improved man-  
agement practices have all teamed  
up to increase yields per acre, cut  
costs and boost profits. He stressed  
fertilization not only for the cur-  
rent crop, but for the benefit of fu-  
ture crops as well.

M. B. Russell, University of Illinois  
agronomist said that the grower him-  
self has much to do with the type of  
field his land gives. "Some operators  
who see their land only when they  
cut in the crop and again when they  
harvest it, are in a poor position to  
know their land and to farm it to its  
greatest potential." He continued by  
saying that lack of nutrients in the  
soil is "probably the greatest limiting  
factor in crop production, but the  
farmer can control the nutrient sup-  
ply," he said.

Somewhat the same line of reason-  
ing was followed by O. J. Attoe,  
University of Wisconsin agronomist,  
who said that when the soil is prop-  
erly limed and fed phosphate and  
potash fertilizer, alfalfa stands can  
frequently survive unfavorable condi-  
tions and stay productive for a "sur-  
prising" number of years. He report-  
ed that land once thought too poor  
to grow alfalfa is now producing  
money-making hay crops for the  
seventh successive year, due to a  
soil-building program that included  
lime and high-potash fertilizer.

A University of Nebraska agron-  
omist, R. A. Olson, pointed out that  
during drouth periods, fertilized  
wheat grows better than unfertil-  
ized wheat. The stronger root  
growth of winter wheat on fertile  
soil enables the plant to make bet-  
ter use of deep-lying subsoil mois-  
ture. However, he added that in  
cases where no subsoil moisture  
supply exists, fertilizer is not able  
to help.

Winter wheat yields have been in-  
creased as much as 13 bu. an acre in  
Eastern Nebraska tests, when nitro-  
gen and phosphate fertilizer were  
used, he reported. Net profits from  
the use of fertilizer averaged up to  
\$16 an acre. The use of nitrogen fer-  
tilizer gave a return of \$3 for every  
dollar invested in plant food, he said.

Fall applications of nitrogen have  
proved as effective as spring applica-  
tions in increasing yields, but spring  
applications have been more effective  
in boosting the grain's protein con-  
tent.

Fertilizer with high water soluble  
phosphates will give more bushels of  
corn and oats per acre than those  
with low water solubility, when the  
fertilizer is used in the hill for corn  
or in the row for oats, according to  
John R. Webb, Iowa State College  
research agronomist in his report. He  
declared that when fertilizer was  
used in the row, corn yield increases  
were nearly three times greater in  
Iowa tests with phosphates high in  
water solubility than when the solu-  
bility was lowest.

Early season growth was much  
faster, too, with corn plants 10.6  
inches higher on July 1, on fields  
fertilized with phosphate high in  
water solubility, than on unfertil-  
ized plots. Corn on soil treated  
with low water soluble phosphate  
was only 1.8 inches higher than on  
unfertilized fields.

Adding nitrogen to the fertilizer  
helped double alfalfa yields when the  
legume was seeded with wheat in the  
fall, Richard Swenson, Michigan State  
College soils specialist, said in his  
talk. He reported that a high soil  
nutrient supply is advisable for both  
the alfalfa and the companion crop  
of oats or wheat. Wheat yields were  
increased up to 9.3 bu. an acre and  
oats 15 bushels, when 40 lb. nitrogen

an acre was added to the fertilizer.

R. L. Cook, head of Michigan  
State College's agronomy depart-  
ment, discussed some of the me-  
chanical equipment that will save  
time and effort in producing crops.

The Chicago convention of the Mid-  
dle West Soil Improvement Com-  
mittee was the seventh annual joint  
meeting of college agronomists with  
the fertilizer industry. The MWSIC  
operates in 13 midwestern states,  
with headquarters in Chicago. H. S.  
Vorhes, Virginia-Carolina Chemical  
Corp., Dubuque, Iowa, is president of  
the group and Zenas H. Beers, Chi-  
cago, is full-time secretary.

#### MANURE SALES

SACRAMENTO — Approximately  
150,000 tons of bagged manure with  
a retail sales value of \$3,500,000 are  
sold in the Los Angeles area each  
year, the California State Depart-  
ment of Agriculture reports. No esti-  
mate has been made for unbagged  
manure or for sales in other areas  
of California.

## Wilson & Geo. Meyer, Stauffer Announce New Fertilizer Program

SAN FRANCISCO—A new educa-  
tional and technical service program  
for agricultural experimental agen-  
cies, fertilizer distributors and proc-  
essors was announced Feb. 21 by  
Stauffer Chemical Co. and by Wilson  
& Geo. Meyer & Co., exclusive dis-  
tributor of Stauffer phosphate and  
ammoniated phosphate products.

Hans Stauffer, president of  
Stauffer Chemical Co., also an-  
nounced the appointment of Russell  
M. White to head up the new serv-  
ice which will develop new uses  
for fertilizer products through re-  
search and development work. He  
will make his headquarters on the  
West Coast.

Prior to joining Stauffer, Mr. White  
was assistant to the general manager  
of American Cyanamid Chemical  
Co.'s agricultural chemical division.

Stauffer produces superphosphates

and ammoniated phosphates in plants  
at Richmond and Los Angeles, Cal.,  
and Tacoma, Wash. The 105-year-old  
Meyer firm makes its headquarters  
in San Francisco and maintains sales  
offices and warehouses in Los An-  
geles, Fresno, Portland, Seattle,  
Phoenix and Salt Lake City.

## Infringement Suit Filed By Rohm & Haas Company

PHILADELPHIA — A patent in-  
fringement suit was filed on Febru-  
ary 16 by Rohm & Haas Company  
against Robert Chemicals, Inc. of  
Nitro, West Virginia. The suit, filed  
in the U.S. District Court at Charles-  
ton, West Virginia, charges infringe-  
ment of U.S. Reissue Patent 23742  
under which Rohm & Haas sells its  
brand fungicides.

This action follows the filing by  
Rohm & Haas several months ago, of  
an infringement suit on the same  
patent against E-Z Flo Chemical  
Company of Lansing, Michigan, and  
its affiliate, Diamond Fertilizer Com-  
pany of Sandusky, Ohio.



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better DDT than  
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wetable powders, solutions, and emulsions.  
This leading brand of 100% DDT is hard,  
clean, stable. Its use will add kill, stability  
and uniformity to your formulations. Phone,  
write or fill in the coupon below for prices,  
conditions and samples.

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powder should investigate our PEST-  
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tropical conditions, its uniform wettable and

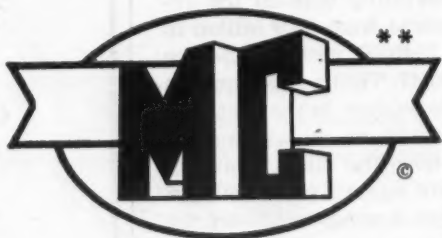
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QUALITY PRODUCER OF PESTMASTER\* DDT & METHYL BROMIDE AND OTHER AGRICULTURAL CHEMICALS



# Croplife

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The rotational circulation of this issue is concentrated in the Southern states.

## Khapra Beetle Publicity

Reminiscent of the "Wanted" signs that adorn post office bulletin boards to picture and describe criminals at large, are the bulletins sent out recently by the U.S. Department of Agriculture to acquaint everyone with the khapra beetle.

Presenting 40-time enlargements of the bug in both the larval and adult stages, the viewer gets a good appraisal of the pest and should thus be able to identify one should he run into it in stored grain. The folder, sent out by the Insect Identification and Parasite Introduction Section, ARS, also pictures a typical scene where the khapra beetle's cast skins are found in barley, and gives full instructions on how and where to look for the pest.

It seems to us that the people responsible for this type of publicity should be congratulated for both their alertness and imagination in producing this brochure. It should tend to slow the progress of the pest's introduction into new areas and give more time for the further development of effective chemical means of control.

Because of the nature of the khapra beetle, it is unusually difficult to control and defies most of the existing methods. In areas where it has gained a foothold, the bug has done great damage to grains in storage. The idea now is to prevent its spread to other areas, or to catch incipient infestations before they become more serious and widespread.

We hope that the efforts being put forth by USDA to create an awareness of the new pest, will be successful. Once the villain is known well enough to be recognized immediately, the less chance he will have to establish himself in grain storage places over a wide territory.

## Exaggeration Unnecessary

While energetic merchandising of pesticides and fertilizer materials is not only laudable, but also a necessity in this competitive market, some restraint must still be exercised to keep one's enthusiasm from running away from the realm of good judgment in efforts to sell.

In exulting beyond the dictates of fact and conscience, it is easy to run unfounded advertising claims straight into a Federal Trade Commission suit. Such action is not only embarrassing and expensive, but also avoidable with reasonable handling of facts.

A recent initial decision by FTC involved an eastern concern which produces and sells a liquid fertilizer product. Probably the material offered for sale was of good quality, but the advertising of its makers would cause anyone familiar with the uses and limitations of plant food, to sit up and take a second look.

Here are some of the claims made by this manufacturer, to which the Federal Trade Commission raised particular objections:

That the product contains all known trace elements necessary to the growth, production or feeding of trees or plants; that vitamins are necessary for this growth, production or feeding; and that application of the product will cause plants to grow under any circumstances other than a lack of fertilizer.

That other fertilizers or plant foods will not produce as satisfactory results as the one being advertised; that the dipping of trees, shrubs or plants in the product before planting, will assure growth; and that plants given up for dead will be saved by applying this product.

The firm also stated flatly that dry fertilizers do not provide a balanced diet to plants, and

that a fertilizer must be applied in liquid form in order that plants may utilize the ingredients.

It was also stated that this product makes other fertilizing methods obsolete; or causes grass to germinate in a shorter time than all other commercial fertilizers.

The FTC also forbade representations that one pound of the company's fertilizer makes an amount of liquid fertilizer in excess of the actual amount present; or that one pound is equivalent to any number of pounds of other fertilizers, contrary to the fact.

Such a parade of unfounded claims, happily, is seldom seen any more. It is difficult to understand why any fertilizer firm worthy of the name, would feel it necessary to go overboard in such a gross manner to sell its products. Actually, the true story of fertilizer's success in increasing yields of crops and making possible added income for growers under restricted acreages, is one that needs no exaggeration.

The public knows, we think, that the American fertilizer industry has a wonderful product to sell and increasing consumption year after year reflects a greater degree of reliance on plant food than was ever shown before.

This in itself indicates knowledge on the part of growers throughout the country that only an infinitesimal portion of the fertilizer industry resorts to exaggerated claims for its products. The other 99.9% knows that its products will be accepted as soon as the actual facts can be presented. We are sorry whenever it becomes necessary for FTC or other regulatory body to step in and slap the wrists of over-enthusiastic firms. Such things tend to cast reflections, unjustly, on the entire industry.

## Reducing Production Costs

"Agriculture is moving forward on two fronts of great importance. On the one hand, other resources are being substituted for land—power and technology. The increases in mechanical power and the expanded use of fertilizer, machinery, pesticides, improved crop varieties and other technological changes, have made possible our increased capacity to produce without the use and development of vast additional acreages which are unobtainable. This mechanical and technological revolution in agriculture has also been taking place in transportation, processing and distribution. Hence, our costs of doing business have increased substantially.

"That is why farm leadership has placed increased emphasis on efficiency of production and distribution and on the wise use of our agricultural resources. As we achieve greater efficiency in the use of land, labor, and capital, our costs will come down to the benefit of ourselves and those who use our products." — Ervin L. Peterson, before Nat'l. Assn. of Soil Conservation Districts, San Diego, Cal., Feb. 4, 1955.

## Quote

"Rigid 90% price supports were not what lifted farm income during the decade from 1940 through 1949 to a level of high prosperity. Only the exceptional, almost unlimited, demand during the war and the reconstruction period, and our farmers' full utilization of this opportunity boosted the average annual net farm income from \$3.9 billion in 1930-39 to \$11.5 billion in 1940-49, with an all-time record of \$16.8 billion in 1947. That price supports had nothing to do with it is evident in the fact that in 1940-49 farm prices stood at an average of 111% of parity, or high above the floors. Many of them for years pressed hard against price ceilings. The net income of farmers depends more on the volume that can be sold at a price and the costs involved in producing it than it does on the support the government puts under the prices." — Karl Brandt, Associate Director, Food Research Institute, Stanford University, Palo Alto, California.



CROPLIFE is a controlled circulation journal mailed to those responsible for the production and distribution of fertilizer and other farm chemicals and to retail dealers of the agricultural chemical industry in the U.S. To those not on the controlled list, CROPLIFE is available at \$5 for one year, \$9 for two years (\$8 a year outside the U.S. and possessions). Single copy price, 25¢.

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# MEETING MEMOS

Feb. 28-March 1—Fertilizer Section, Southern Safety Conference, Jung Hotel, New Orleans, Curtis A. Cox, Virginia-Carolina Chemical Co., Richmond, Va., Chairman.

March 1-2—Second Annual Missouri Aerial Spray Applicators Short Course, Memorial Student Union, University of Missouri, Columbia.

March 3-9—Idaho Plant Food Meetings, Sponsored by the University of Idaho; Couer d'Alene, March 3; Lewiston, March 4; Boise, March 7; Twin Falls, March 8; Idaho Falls, March 9.

March 7-9 — National Agricultural Chemicals Assn., Spring Meeting, Chase and Park Plaza hotels, St. Louis. Lea S. Hitchner, Associations Bldg., 1145 19th St. N.W., Washington, D.C., Executive Secretary.

March 8-9—Western Cotton Production Conference, Hotel Westward Ho, Phoenix, Ariz.; National Cotton Council, P.O. Box 18, Memphis 1, Tenn.

March 14-15 — National Nitrogen Solutions Assn., First Annual Meeting, Paxton Hotel, Omaha, Wayne R. Johnson, Box 163, Shenandoah, Iowa, president.

March 22-24—National Farm Chemurgic Council, Inc., Annual Conference, Deshler-Hilton Hotel, Columbus, Ohio; John W. Ticknor, NFCC, 350 Fifth Ave., New York, conference chairman.

March 24-25—North Central States Branch, Entomological Society of

America, East Lansing, Mich.

Apr. 26 — Third Annual California Fertilizer Conference, sponsored by the Soil Committee, California Fertilizer Assn., University of California, College of Agriculture, Davis, Cal.; Sidney H. Bierly, Executive Secretary, CFA, 475 Huntington Drive, San Marino, Cal.

May 19—Fertilizer Section, 25th Annual North Carolina Safety Conference, Robert E. Lee Hotel, Winston Salem, N.C.; William C. Oreal, Safety Director, Department of Labor, State of North Carolina, Raleigh, Chairman.

June 2 — South Carolina Fertilizer Meeting, Sandhill Experiment Station, near Columbia, S.C.

June 3—Fertilizer Section, Virginia State Safety Association, Jefferson Hotel, Richmond, Va.; William C. Richardson Southern States Cooperative, Richmond, Chairman.

June 12-15—Joint meeting, American Plant Food Council, Inc. and National Fertilizer Association, Greenbrier Hotel, White Sulphur Springs, W.Va. Paul T. Truitt, American Plant Food Council, 910 17th St. N.W., Washington, D.C., in charge of registration.

June 28-30 — Sixth Annual Pacific Northwest Plant Food Assn. Regional Fertilizer Conference, Boise Hotel, Boise, Idaho, Leon S. Jackson, 702 Lewis Bldg., Portland, Ore., secretary.

Aug. 15-19 — American Society of Agronomy and Soil Science Society of America, University of California, Davis Campus.

Sept. 7-9 — Ninth Annual Beltwide Cotton Mechanization Conference, Texas A&M College, National Cotton Council of America, Box 18, Memphis 1, Tenn.

Oct. 17-18 — Fertilizer Section, Na-

tional Safety Congress, LaSalle Hotel, Chicago, Thomas J. Clarke, Chairman.

Nov. 2-3 — Annual Convention, Pacific Northwest Plant Food Assn., Pilot Butte Inn, Bend Ore., Leon S. Jackson, 702 Lewis Bldg., Portland, Ore., Secretary.

Nov. 7-8—California Fertilizer Assn., Thirty Second Annual Convention, Hotel Mark Hopkins, San Francisco, Sidney H. Bierly, Executive Secretary & Manager, 475 Huntington Drive, San Marino, Cal.

Dec. 5-7—Agricultural Ammonia Institute, Kansas City; Jack F. Criswell, Executive Vice President, Claridge Hotel, Memphis, Tenn.

## Meeting of Missouri Aerial Applicators Set

COLUMBIA, MO.—The second annual Aerial Applicators Short Course will be held at the Student Union on the University of Missouri Campus here March 1-2. The program will include morning and afternoon sessions on both days.

Session chairmen will be Stirling Kyd, extension entomologist, Missouri Agricultural Extension Service; Dale Fearn, Missouri Resources and Development Commission; Sam B. Shirkey, associate dean, Missouri College of Agriculture, and Russell E. Larson, Agricultural Engineering Branch, U.S. Department of Agriculture.

## Witco Acquires Interest In Ultra Chemical

NEW YORK—Witco Chemical Co. recently acquired a half interest in Ultra Chemical Works, Inc., of Paterson, N.J.

Ultra is a large independent producer of industrial and household detergents, wax emulsions and specialty chemicals for the textile industry, and many highly specialized synthetic organic chemicals. Ultra's principal plant is at Paterson, and additional plant facilities are maintained at Joliet, Ill., and Hawthorne, Cal.

## Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge \$2.25. Situations wanted, 10¢ a word; \$1.50 minimum. Count six words of signature, whether for direct reply or keyed, care of this office. If advertisement is keyed, additional charged for forwarding replies. Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of \$0 per column inch.

All Want Ads cash with order.

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## CLASSIFIED ADVERTISING

## Richard P. Smith In New Monsanto Post

ST. LOUIS — Richard P. Smith, Miamisburg, Ohio, has been named purchasing agent for Monsanto Chemical Co.'s Inorganic Chemicals Division's new plant at Kearny, N.J., it was announced here recently by H. J. Hefferman, company director of purchasing and traffic. Mr. Smith replaces Edward L. Otto, who is being transferred to St. Louis to work on procurement and expediting matters for the Inorganic Chemicals Division engineering department. Both changes are effective immediately.

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